

Commercial

SOUTHERN TEXTILE BULLETIN

VOL. XXV. 24

CHARLOTTE, N. C., THURSDAY, APRIL 5, 1923.

NUMBER 6

*Your search for an
Efficient and Depend-
able Conditioning
Room Equipment ends
here.*

**Effective
Efficient
Economical**

Does your yarn contain the proper amount of moisture. If not, you should investigate the BAHNSON Conditioning Room.

The principle involved in the design of the BAHNSON Conditioning Room Equipment insures a constant circulation of the air in the room which forces the moisture into the yarn evenly and thoroughly.

No other investment in equipment will give as positive, effective, visible and profitable results as a BAHNSON Conditioning Room.

List of BAHNSON Conditioning Room owners will be sent upon request.

The BAHNSON Company

Humidification Engineers

Winston-Salem, N. C.

New York Office 437 5th Ave.

Machine Shop Tools

We have in stock ready for immediate shipment, subject to prior sale:

- | | |
|--|--|
| 1—No. 2 Brown & Sharpe Universal Milling Machine. | 1—No. 4 Crown Grinder complete with Guards, Head, Column and Countershaft—Capacity 2—12x2 Wheels—Without Wheels. |
| 1—16x8 Sidney Med. Pattern Quick change Lathe taking 4 ft. 8" between centers. | |
| 1—20" Buffalo Drill Press complete with Back Gear Power Feed and Automatic Stop. | 1—4x6 Vertical Triplex Single Acting Power Pump. |
| 1—18x10 Sidney Standard Pattern Lathe 6 ft. 6" between centers. | 1—3x4 Vertical Triplex Single Acting Power Pump. |
| 1—16" Back Geared Heavy Duty Ohio Shaper with 20" stroke, weight 3100 lbs. | 1—6x4x6 Reg. Fitted Horz. Duplex Boiler Feed. |
| 1—Second hand Motor Driven Hack Saw Machine, capacity 5"x6" Guaranteed in first class condition. | 1—6x4x6 Brass Fitted Horz. Duplex Boiler Feed. |
| | 1—4½x2¾x4 Brass Fitted Horz. Duplex Boiler Feed. |
| | 1—3x2x3 Brass Fitted Horz. Duplex Boiler Feed. |

Textile Mill Supply Company

Phones 2781-2782

Charlotte, N. C.

Tax-Audits

Annual Audits

made under the supervision of Certified Public Accountants mean an independent verification of the recorded transactions and prove the clerical accuracy of the books.

Audit Reports

of Certified Public Accountants that contain information of costs, operations and financial data covering the year, are important records of unusual value for reference, administrative and budget making purposes.

Financial Statements

prepared by Certified Public Accountants of established practice and known in the business world, have a peculiar and distinctive value in the banking and commercial centers.

Income Tax Returns

both State and Federal, are important reports required to be filed by every corporation and other taxpayers not later than March 15th of each year. Such reports, prepared by Certified Public Accountants, who are familiar with the Laws, Regulations and Decisions, lessen the liability of additional taxes, reduce the annoying features of investigations and facilitate the work of the authorities in proving their correctness.

SCOTT, CHARNLEY & CO.

An Organization of

Certified Public Accountants

Charlotte, N. C.
Knoxville, Tenn.
Greensboro, N. C.
Asheville, N. C.

Washington, D. C.
Columbia, S. C.
Raleigh, N. C.
Wilmington, N. C.

VELVETEEN

The Supreme
TEXTILE OIL

U. C. TALLOW U. C. GUM A
KING BRAND SIZING
ANILINE COLORS

UNITED CHEMICAL PRODUCTS
CORPORATION

Importers, Exporters and Manufacturers

York & Colgate Sts. Jersey City, N. J.
Southern Office, 307 Commercial National Bank Building Charlotte, N. C.



Staley's

Staley service guarantees superior quality in textile products—at lowest cost.

This is because our starches are specially processed to specific requirements, with our full co-operation for best results.

The successful application of this service has made Staley's mill starches the standard of the textile industry.

Consult our technical and engineering staff without obligation.

A. E. STALEY MFG. CO

DECATUR, ILLINOIS

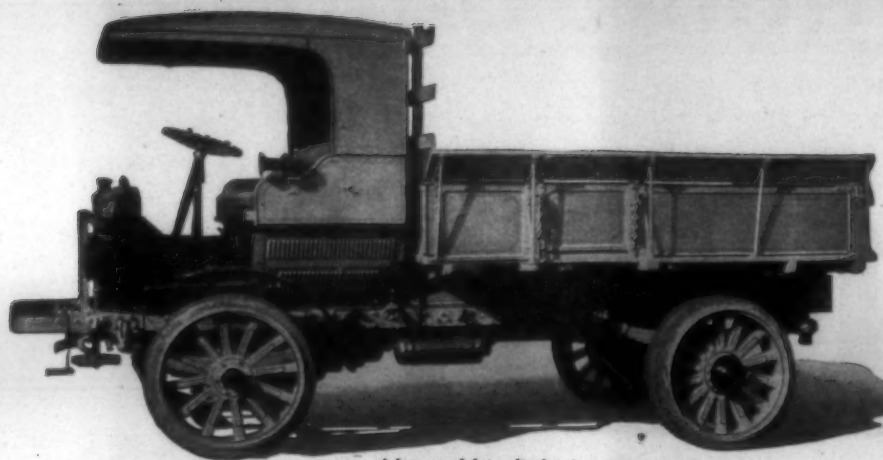
508 Andrews Law Bldg.,
Spartanburg, S. C.

J. W. Pope,
Care Ansley Hotel,
Atlanta, Ga.

25 Church Street,
New York, N. Y.

88 Broad Street,
Boston, Mass.

Starch



A late model 4-cylinder Autocar

The sturdy
Autocar
Wherever there's a road

"The Sturdy Autocar" Endorses Edge Moor

THE Autocar Company, pioneer maker of motor trucks, has a 500 H. P. Edge Moor in its big plant at Ardmore, Pa. A recent letter from the Autocar Company says:

"This boiler has been installed for several years, and is giving very satisfactory service.

"We operate with a furnace temperature of 2400° F., a temperature at top of first pass of 950° F., and a stack temperature of 425° F., when carrying 125% of rating at 150 lbs. pressure.

"As the main purpose of a boiler is to absorb the heat from the fuel, you can readily see from the above temperatures that this Edge Moor Boiler is acting in a way to confirm the confidence we had in it at the time we made the purchase."

Edge Moor Water Tube Boilers are designed and built to meet the conditions imposed upon modern power plants.

The Edge Moor catalogue explains the important advantages of this boiler that have won for it the preference of industrial leaders. Your request will bring a copy promptly.

EDGE MOOR IRON COMPANY

Established 1868

EDGE MOOR, DELAWARE

New York Chicago St. Paul Boston Pittsburgh Charlotte



500 H. P. Edge Moor Boiler with Detroit stoker in the Autocar plant at Ardmore.



EDGE MOOR Water Tube BOILERS

FOR INCREASED FUEL ECONOMY

WHAT WILL THE DYE DO?

*ASK the "National" Salesman
what the dye will do.* Put
your problem up to him—he is quali-
fied to understand your dye require-
ments. He has the support of the
"National" Laboratory and the
"National" organization.

"National" is equipped to give you dyes
that will do exactly what you want
them to do.

National Aniline & Chemical Co., Inc.
40 Rector Street, New York, N.Y.

*Boston
Providence
Hartford*

*Philadelphia
Charlotte
Chicago*

*San Francisco
Toronto
Montreal*

"NATIONAL" DYES
FOR TEXTILES



Washers Equipped With Hyatt Bearings Effect Worth While Operating Economies

The James Hunter Machine Company of North Adams, Mass., recommend Hyatt roller bearings on their complete line of washers, fulling mills and other finishing machinery.

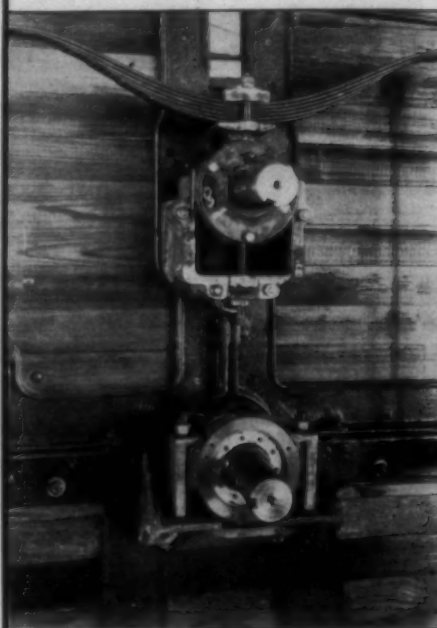
They find by the use of Hyatt bearings a power saving of from 25 to 30%, which amounts to a real reduction in operating costs.

The lubrication troubles experienced on all plain bearing finishing machinery are entirely eliminated by the carefully enclosed housings of Hyatt bearings—they require lubrication only 3 to 4 times a year as the oil cannot get out, or water get into the bearings.

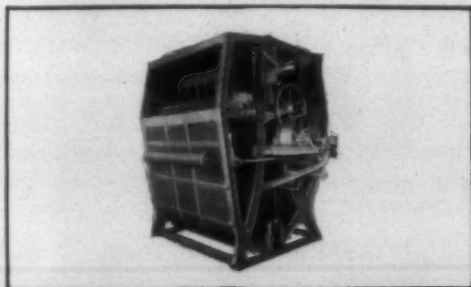
To secure the many advantages of Hyatt roller bearings on finishing machinery it is not necessary to wait until you order new equipment. Replacement boxes containing Hyatt bearings are designed especially for finishing machinery and afford an easy, economical method of adding years of useful service to the life of your present equipment.

The positive operation, the power saving and the lubrication saving are uniform throughout the life of Hyatt equipped machinery because of the extreme durability of these bearings.

Can you longer afford to operate finishing machinery equipped with ordinary bearings? Ask the James Hunter Machine Company to quote you on new Hyatt equipped machinery or on applying Hyatt bearings to your present machines.



The James Hunter Machine Company recommends and furnishes Hyatt roller bearings on their complete line of washers and fulling mills. Photo shows close up of the Hyatt boxes, cover plate removed from one box, showing bearing.



HYATT ROLLER BEARING COMPANY

Newark Detroit Chicago San Francisco

Worcester Milwaukee Huntington Minneapolis Philadelphia

Cleveland Pittsburgh Buffalo Indianapolis

Alabama's Climate

CLIMATIC conditions in Alabama are most advantageous for all kinds of manufacturing, and particularly for textile mills. Variations between highest and lowest temperatures are much less than in other parts of the United States. For instance, at Birmingham, Ala., the highest record is exactly the same as that of Springfield, Mass., whereas the low record of Birmingham is fifteen degrees above the low record of Springfield.

FREEZING temperatures are common to the northern part of Alabama, but the lowest records are rare and of short duration, reducing the cost of fuel for heating and cutting down the expense of winter clothing. Snow and ice blockades on the railroads are unknown, and during the winter

of 1922-23 when the north has been battling with such blockades, traffic has moved over Southern railways in record-breaking quantities. Hydro-electric power plants are never shut down by frozen streams and outdoor operations are not hampered by cold and snow.

Employees are never snow-bound and unable to get to work on time. Daylight in winter is longer than in the north, reducing lighting expenses.

FREIGHT traffic in Alabama, both rail and water, moves in uninterrupted manner twelve months in the year in Alabama, and with the state's exceptional stores of raw materials, including iron, steel, coal and various other valuable miners; cotton grown almost at the doors of the mills; abundant hydro-electric power, with ample steam reserves; plentiful native labor, equal in character and ability to the workers in other sections of the country, attractive opportunities are offered for new and branch plants. All desired information furnished upon request.

OFFICIAL WEATHER

Reported by the U. S. Bureau at
Birmingham, Ala., for
January, 1923.

Day	Max.	Min.
1	52	51
2	56	41
3	64	42
4	48	36
5	57	28
6	56	40
7	56	50
8	64	45
9	63	45
10	59	50
11	58	31
12	66	40
13	64	54
14	64	42
15	67	54
16	53	37
17	54	34
18	59	34
19	67	46
20	56	54
21	69	52
22	70	56
23	50	46
24	44	43
25	42	37
26	52	42
27	62	42
28	73	52
29	64	56
30	64	43
31	71	55

ALABAMA POWER Co.

BIRMINGHAM ALABAMA

PENICK & FORD, Ltd.

*Announce the Manufacture
of*

DOUGLAS STARCH

ALSO thin boiling and special warp sizing starches---smooth and free from lumps and impurities.

Douglas Starch is the same excellent grade of starch as formerly produced by the well known Douglas Starch Company.

Douglas special starches are made in a variety of fluidities to meet the needs of all textile manufacturers.

We solicit your orders. Our Technical Staff will gladly advise with you, regarding your special requirements. Write us to Cedar Rapids, Iowa.

PENICK & FORD, Ltd.

Offices

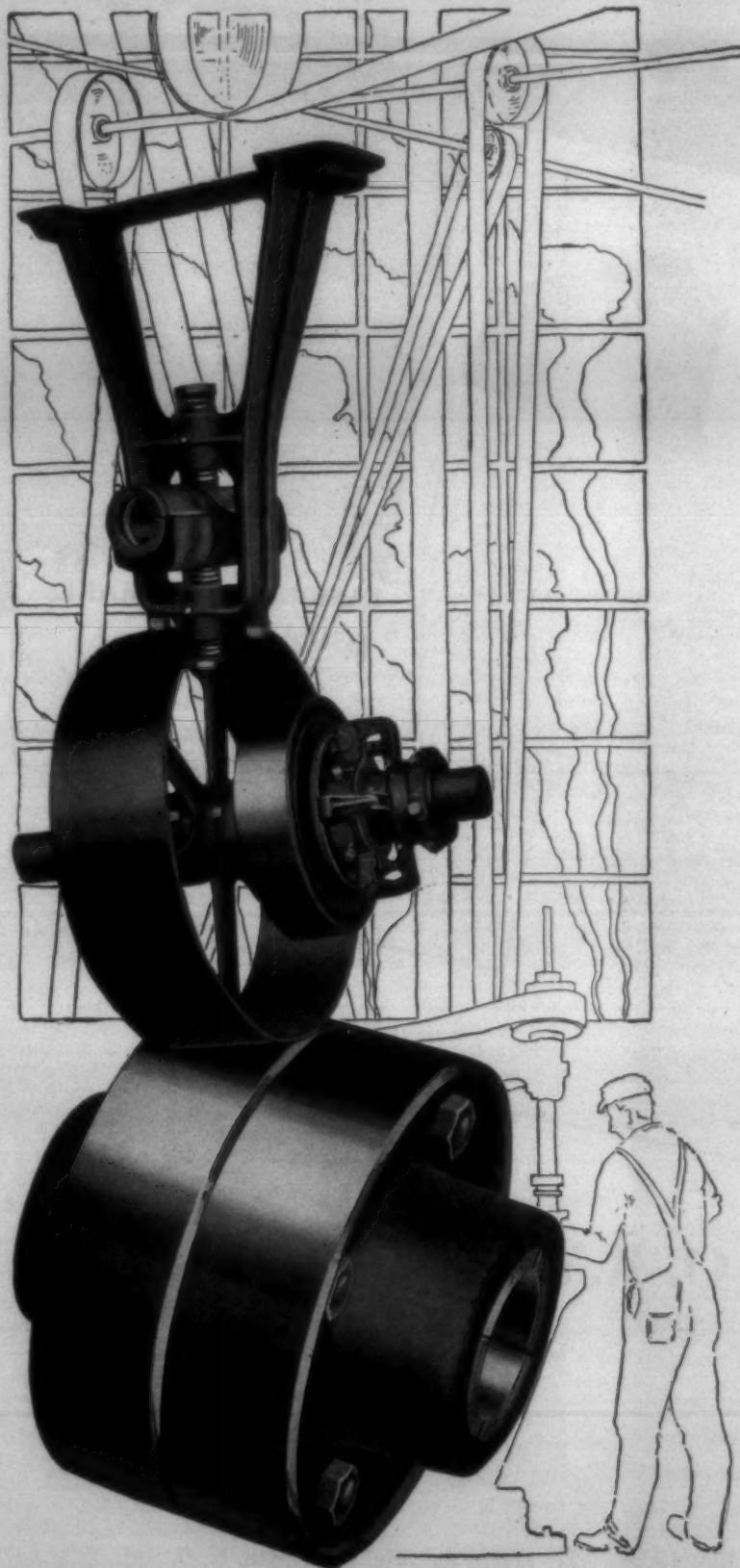
Cedar Rapids, Ia.
New Orleans, La.
Montgomery, Ala.
New York, N. Y.

Southern Representative

G. L. Morrison
Greenville, S. C.

New England Representative

Marble Nye & Co.
Boston and
Worcester, Mass.



TRANSMISSION APPLIANCES

In determining the question of your power equipment you are not making a selection for a day, but rather for your lifetime and for generations to come.

Therefore, you are buying something you expect to use for years, and the importance of considering design and quality cannot be too strongly emphasized, as the satisfaction you will have will depend upon your selection of the original equipment.

Each of our appliances is correctly designed and of proper weight for its intended service, and the superiority of our workmanship assures such a high quality of product as will give absolute satisfaction.

The **W^TB^D** Line is
SONS CO.

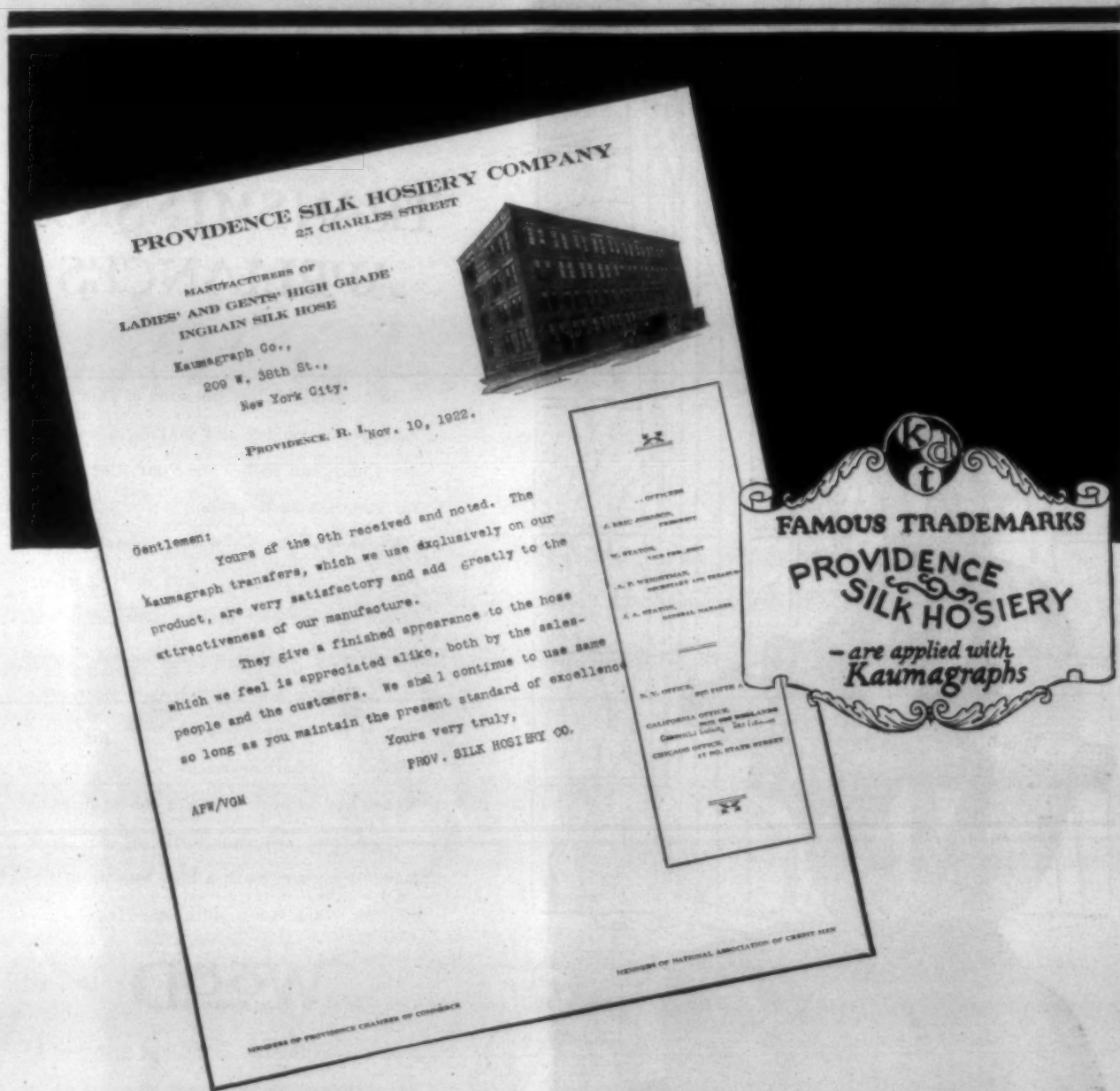
complete to the last detail and endorsed by its performances in every department of every class of mill.

Details of whole line on request

T. B WOOD'S SONS CO.

CHAMBERSBURG, PENNSYLVANIA

SHAFTING-COUPPLINGS HANGERS-CLUTCHES PULLEYS-ROPE DRIVES



Everybody O. K.'s Kaumagraphs

Your salesmen and customers, like those of the Providence Silk Hosiery Co., will like your hosiery even better if you trademark with Kaumagraph Dry Transfers—because the mark is clear and handsome, adding to the quality of the product.

You will be surprised at the blur-less, legible marking Kaumagraphs will stamp on your hosiery. You will be surprised at the speed of operation. You will be surprised at the low cost of such a high quality impression. Write for samples and prices today!

KAUMAGRAPH CO. Est. 1903 219 Latta Arcade, Charlotte, N. C.
NEW YORK CHICAGO PHILADELPHIA BOSTON HAMILTON, ONT. PARIS, FRANCE

For Trademarking Textiles, Silks, Hosiery, etc., use

Kaumagraphs

SOUTHERN TEXTILE BULLETIN

PUBLISHED EVERY THURSDAY BY CLARK PUBLISHING COMPANY, 39-41 S. CHURCH STREET, CHARLOTTE, N. C. SUBSCRIPTION \$2.00 PER YEAR IN ADVANCE. ENTERED AS SECOND CLASS MAIL MATTER MARCH 2, 1911, AT POSTOFFICE, CHARLOTTE, N. C., UNDER ACT OF CONGRESS, MAR. 2, 1879.

VOL. XXIV.

CHARLOTTE, N. C., THURSDAY, APRIL 5, 1923.

NUMBER 6

Urges More Mills for Eastern Carolina

(Extracts from speech by Josephus Daniels at the Eastern Carolina Exposition at Wilson, N. C., March 20.)

This great Exposition was not enterprised to either make perfect of the fact that Eastern North Carolina has become the chief home of the bright tobacco or that the fleecy staple finds here the best conditions. Neither was it organized to give emphasis to what all the world now knows, to wit: that Wilson has become the chief bright tobacco market of the world. Agricultural progress of recent years has brought marked developments to all the coastal plain. What has been done is but evidence of the big things in the way of intensive and scientific farming which are to pour treasures into the laps of the intelligent and industrious tillers of the soil of this part of the world. This Exposition is the concerted expression of the belief of forward looking men to forty counties that the time has come for launching new enterprises and enlarging old ones that shall make Eastern North Carolina a leader in manufacturing as it is in farming.

Until recently it required most of the capital and most of the energy to carry on the better system of farming, which has grown great, though it is far from its full development. Capital has also been required to provide facilities for handling the great crops and financing the industries already established.

The time is now ripe for Eastern North Carolina people to realize the dream of those citizens who harnessed the water power of the Tar river at the falls near Rocky Mount in the fifties and began to convert cotton in the fields into the finished product. We read that Gaston county has 100 cotton mills and more. As patriotic North Carolinians we rejoice, every one of us born on the plains, in the spirit behind the textile development of that puissant county. But, beloved, Gaston county has no advantage in manufacturing cotton over Wilson county, or Nash county, or other counties in the territory represented here in this Exposition. Cotton grown in Gaston county is not a better staple than that grown in Johnston or any other cotton growing counties of the east. Indeed we can grow longer staple here than in that great county. In the beginning it had no better

labor and much of its labor has been transported from the mountain sections.

Years ago they told us—I do not know who invented the fable—that there was something in the Pied-mount country, in its climate or its atmosphere or something indefinite that gave it an advantage not possessed in Eastern North Carolina for the textile industry. There is nothing in it. The great eastern county of Halifax, beginning at Roanoke Rapids, has demonstrated to all the world that there is nothing in nature or in local conditions that gives supremacy of one part of North Carolina over another for the advancement of the textile industry.

The few mills which have not succeeded in the East have been a damper upon the enthusiasm necessary to induce capital to go into the textile industry. These early failures were due either to the lack of capital or the lack of modern machinery, or the lack of having the best management, or all three. Wherever this trinity of guarantees of success have united, either in Gaston county or Halifax county or Nash county or Richmond county, the result has been the same—steady employment of labor, large returns for capital and great growth of industrial centers. This Eastern North Carolina Chamber of Commerce is doing a great service by sharply calling to the attention of the people with money that here where the cotton grows is the place to fashion it for our own use and to send it to the uttermost parts of the earth to clothe those on "Greenland's icy mountains and in India coral strand." If this united Chamber and this Exposition can teach that lesson, first to people hereabouts so they will invest their money here instead of throwing it at the birds in the blue sky, and then to outsiders, it will have rendered a service beyond all words of commendation beyond all words of commendation.

The day has passed in the textile industry when North Carolina must be content to spin yarns and make the coarser fabrics. We had to crawl before we could walk. Every section must grow or manufacture what its labor can produce. In the first days our untrained labor could fashion the raw cotton into only the cheapest product of the loom. But as labor has become skilled, North Carolina factories have demonstrated that they can take cotton from the fields and turn it out so that

only an expert can tell it from silk, as well as it can be done at Sheffield or Fall River.

We must quit our willingness to sell yarns and cotton goods to mills in other sections to be by them finished and converted into the high-priced fabrics. We must have as our goal the production of cotton silks as well as cotton hosiery and cotton B. V. D.'s and cotton overalls. Why not adopt a slogan at this Exposition and let us all resolve to wear no hosiery or B. V. D.'s or overalls not made in the mills of our own part of the world?

What gives the primacy to North Carolina manufactured tobacco? It is that far-seeing manufacturers of the week early saw that they must turn out a product second to none and must see that it was sold under a known and registered brand. What do you suppose would have happened to Durham and Winston-Salem if Jule Carr and Buck Duke and Dick Reynolds had manufactured their tobacco as most cotton mill men turn out their product? As a rule, a North Carolina cotton mill man takes an order for a certain kind of fabric and ships to his Northern purchaser without the least mark on it to show where it was made. The Chicago or New York producer gave it the name of his brand, registers it under his trademark, and makes a market for it under a name he selects. What is the result? The North Carolina manufacturer gets the smallest part of what the consumer pays, and the man who registers and advertises the stuff of our mills under his name gets not only the biggest profit but all the velvet as well. Suppose Blackwell's Bull Durham or Duke's Mixture or Reynold's Camels had been thus made and all the selling under any name left to the jobbers! What would have been the result? The Durham and Winston-Salem men would have made good money, but those brands would have brought no such wealth to North Carolina and given it no such commanding position in the tobacco world. Why should not this exposition set for attainment the goal for all cotton mills—North Carolina Goods to Be Sold Under North Carolina Names? That would bring to use rather than to others the so-called unearned investment. The biggest asset of a popular tobacco concern is the name of its brand popularized by making an excellent article. Why would not the same

policy bring larger wealth to textile manufacturers? Of course I know there is a difference and that it would be folly to attempt such a course as the exclusive one or to adopt it all in a hurry. But it should be a goal to which we are tending. The example of the old Alamance plaids should show its wisdom. If the mills of Alamance had carried out the name and brand idea begun by Edwin M. Holt they would have made dollars where they have made dimes.

Good Demand for Belgian Textiles.

Washington.—Belgium is negotiating with France for a reduction in French duties on textile yarns, according to a cablegram received at the Department of Commerce. No results have been reported, it was said.

A summary of present conditions in the textile industry of Belgium especially interesting in view of the Ruhr situation, contained in a cablegram prepared jointly by Acting Commercial Attache Cross at Brussels, and Consuls Nasmith, at Ghent, and Messermith at Antwerp, follows:

"The Belgian textile outlook appears bright as a result of higher prices and a large export demand. This however, reflects an artificial prosperity caused by the exchange movement.

"Of all the textile branches, cotton spinning mills are in a relatively less favorable position, due to conditions in the Ruhr. Yarn prices have been forced up by higher quotations on staple cotton and low franc exchange, 18s first quality now being quoted at 18.50 francs per kilo, an increase of 1.75 francs in the last two weeks. Cotton cloth prices show a 35 per cent increase since the beginning of the year. Exports demand is strong, but the domestic demand is slack because of the high prices.

"The flax market is active, with a good demand from both foreign and home buyers maintaining prices firm. Flax spinning mills are booked for six or seven months ahead. Yarn orders from the Netherlands, United Kingdom and Switzerland are plentiful. Linen goods have shown a general price advance of 35 per cent since January 1, which New York and London buyers are accepting without question.

(Continued on Page 35.)

Cleaning Cotton

The methods of opening and cleaning cotton as practiced by the mills in England have given such excellent results that American mills have been very much interested in the English system. The following article on cleaning cotton is a paper read by H. Wilkinson at a recent meeting of the Managers, Engineers, Carders' and Overlooker's Club in Oldham, England.

This subject is of the greatest importance to all cotton spinners, and if examined at its commencement, that is, on the cotton fields, where careless picking brings many impurities, unripe, stained and dead cotton; in the ginning stations, where badly kept gins, overproduction, and now the hard pressing of the bale, all make it more difficult to open and clean the cotton on its arrival in the Lancashire mills, many hours could be spent discussing this portion alone. However, it is my intention to confine the paper particularly to the opening and cleaning process of the cotton as received here.

Many spinning firms have recently given particular attention to increasing the opening and cleaning power in their mixing and blowing rooms by the addition of the patent hopper opener and the patent lattice feeder, these being improved machines of recent invention specially designed to increase the opening and cleaning of

all classes of cotton. Additional machines in an operator combination which do not increase the amount of labor required but which give improved results, are always worth adding; and further, there is not a part of a spinning plant which it pays better to keep up to date and in good working condition than the mixing and blowing machinery.

The question may now be asked, "How should cotton be opened and cleaned?" The answer, in a concise form, is this: "As much opening as possible without injury to the fibres; as much cleaning as possible without curling or stringing them."

Great strides have been made since the days when the bladed beater was the principal cleaning agency and although it is used to-day, yet it is now the practice to get as much cleaning as possible done by combing the lattices and cylinders before the cotton arrives at the beater, and in many cases especially on long staple cottons, the bladed beater is entirely done away with, being substituted by cylinders with strikers which just cover the whole width of the machine in one revolution, therefore only striking the cotton once in one place in one revolution. It is quite plain that cotton is now prepared for the card with as little damage as possible, and, more than that, machine makers are continually making improvements to give the

maximum cleaning with a minimum of beating.

Before passing on to the actual consideration of the machines, the question of stock mixings might be considered. Stock mixings properly made, used at the right time, and pulled in a downward line from the top to the bottom, cannot be detrimental, but must be helpful both to carding and spinning, although in this district excellent results are being obtained up to about 44's system of making the laps direct from the bales. If stock mixings are decided upon, it should be arranged to have about 30 or 40 bales in a mixing. The space taken up by a 30 bales mixing of Egyptian cotton averaging 700 lbs. per bag, is about 370 square feet at a height of 10 feet, that is 5.6 lbs per cubic foot; but if a similar mixing be made of American cotton the weight per cubic foot is about 4.2 lbs. Of course, the less the height of the mixing, the less will be the average density and weight per cubic foot. A mixing should be allowed to stand about three days before being used to ensure that it is in a fairly even condition to assist in the regularity of the whole spinning process.

Where the cotton is fed direct from the bale to the opener lap machine, the usual practice is to lay out, close to the hopper bale breaker, about 30 bales, in lot of

15, with the tares loosened and whilst the operative is feeding the machine from the first lot the second lot is expanding and drying. Under this system there is always about three days' work at hand for the machine. This is, of course, the cheapest system of working, owing to the reduction in labour, cost of insurance, and floor space required, and it is giving entire satisfaction to a very large number of spinners.

Mixing Room Machinery of The Exhaust Opener Combination.

The system of opening cotton by a combing process is exemplified in the hopper bale breaker, patent hopper opener and hopper feeder. Increased opening may be got from the hopper bale by having a 6 rows spiked cylinder in lieu of the ordinary 4 rows, but this is not at all necessary where the patent hopper opener is installed. Moreover, as cotton should be opened gradually, it is much better to allow each machine to do its share of opening instead of trying to get it all done by one or two machines. The hopper bale breaker with its strong spiked lifting lattice and coarse combing cylinder, opens the cotton much better than the old machine, and does the work with less damage to the fibres.

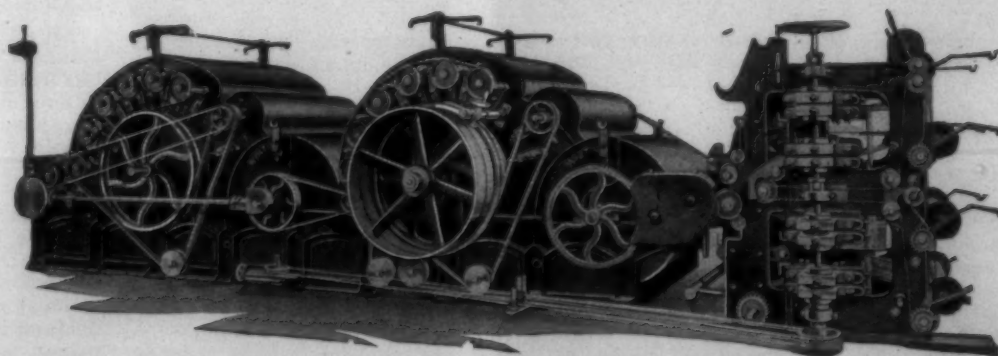
The patent hopper opener is designed especially for opening cotton from hard pressed bales by means

(Continued on Page 32.)

WHITIN MACHINE WORKS

ESTABLISHED 1831
TEXTILE MACHINERY

Manufacturers of Complete Condenser Plants for Wool and Cotton
Waste Yarns



Intermediate and Finisher Cards with Four-Bank Condenser

MAIN OFFICE AND WORKS
WHITINSVILLE, MASS., U.S.A.
SOUTHERN OFFICE CHARLOTTE N.C.

A New Feature of Franklin Service



YOU DO NOT NEED TO BUY YOUR YARN and ship it to us to be dyed. Specify quantity, count and quality of yarn and colors desired. We furnish the yarn and do the dyeing. This saves you much bookkeeping and substantially reduces transportation costs. **FRANKLIN DYED YARN** is delivered to the weaving or knitting department on parallel tubes, cones or jackspools.

FRANKLIN PACKAGE DYEING is successfully handling wool, cotton, spun silk and worsted yarns, producing colors exceptionally brilliant and well penetrated, colors that are proving an important factor in the better marketing of many fabrics.

FRANKLIN PACKAGE DYEING, with its marked saving in dyehouse floor space, fuel, steam, dyes and chemicals, is an economical service.

We also sell **FRANKLIN DYEING MACHINES**. If you desire to establish your own dye-house or raise the efficiency of your present dye-house, send for a Franklin man to consult with you.



FRANKLIN PROCESS CO.

Philadelphia PROVIDENCE Manchester, Eng.

New York Office, 72 Leonard Street

SOUTHERN FRANKLIN PROCESS CO.

Greenville, S. C.



Dyeing Cotton Piece Goods

The outlook for a dyer of cotton piece goods as he steps into his office Monday morning is greatly affected by whether he has planned and executed a part of his work during the previous week.

In a large dyehouse—that is, one where there is machinery and men to dye upwards of one hundred and eighty thousand yards of cloth per day—time is the big element to utilize in machine production. By machine production is meant the number of yards of cloth that actually pass through the dyeing machines in a given time. To make the most of this machine production requires careful planning and a positive schedule which must be followed very closely. The dye formulae have to be made out in advance; these in turn are weighed out and dissolved in the drug room. While this is being done, the machine operators are putting their machines into condition and getting their cloth ready to dye.

As fast as the dye solutions are ready, an experienced man mixes them in the tanks which feed the machines. Careful attention has to be given to the straining and boiling so as to prevent small particles of undissolved color spotting the goods. The dissolving of the dye should always be preceded by a necessary softening of the water, if the plant is not equipped with a water-softening apparatus. As a final precau-

tion, it has been found to be very practical to cover the outlet pipe that runs into the dye trough with a suitable cloth to make the results foolproof.

The skill of the dyer is put to the test as soon as the machine operators present their patches for shading to their respective samples. Good judgment in using the right dyes and amounts in shading is a big time saver. In some cases where the same shade is repeatedly ordered it is possible to use the same formula over and over again. Where this is done, it is just a case of running a patch in this solution and checking the result with a patch from the previous lot or the standard given. On the other hand, where a special sample with a new formula has to be matched, it is often necessary to make additions or alterations in the dye solution until the correct shade is produced. The dyer has a wonderful opportunity to bring into play the power system and of keeping formula records for this type of work.

There are two ways to obtain the correct shade before going ahead with the dyeing operation on a padding machine. One way is to fill the trough underneath the pad rolls with the dye solution, as mixed in the stock tanks, using the proper amount of water so as to show the true depth, and then running through this a patch 1 yard long and

3 inches wide, drying it up and comparing the result with the sample to be matched. The other way is by using a small patch box to run the patch through instead of the large box. The large box takes about 30 gallons of the dye solution, whereas the patch box takes 1 gallon of the dye liquid and one-fourth gallon of water. This latter method is very convenient, in that it saves a lot of time and dyestuffs and gives practically the same result.

There are two tanks holding the stock solutions for feeding a padding machine trough, and each should hold at least 300 gallons. This combined amount is used up in two machine production hours. They are piped up so that they can both be used as one tank or separately. Two different formulae can be made up in the two tanks, and by using a double-compartment patch box both shades can be struck off at one time, so that whichever one is the correct shade can be run first and the other is well on its way toward being correct.

In a dyehouse with a capacity of production as previously stated there is bound to be a very large variety of cloth to be handled as well as innumerable shades to be matched. These require various processes and different kinds of machinery. The processes are dependent upon the use to which the cloth is to be put. If the customer orders a fast

Navy Blue shade to be used in making raincoats, it would be unwise to use any process of dyeing other than one to produce a shade which would not make one blue in the face during a rainstorm.

The machinery for dyeing cotton piece goods is of two distinct kinds. The one is used for dyeing light shades, and is called a padding machine; the other type, for dyeing dark shades, is called a jig.

The padding machine is built on the principle of a wringer, with a trough underneath in which the dye solution is fed from large tanks overhead. The bottom roll rests in the dye solution and as it revolves with the cloth passing through it the dye solution. Upon subsequent drying the water evaporates, leaving a perfectly dyed piece of goods. This type is known as a slop padder. Machines for this kind of work are in use which dye the cloth at a speed of 216 yards for minute. If the machine production is carried on for five hours out of a ten-hour working day the enormous amount of 64,800 yards is dyed on one machine. In a dye-house it is necessary to have three of these padding machines. Conditions are not always favorable enough to allow these three machines to produce a machine.

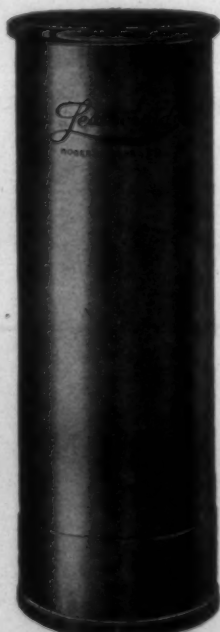
Three other padding machines, with drying cans attached, are (Continued on Page 31.)

"We Know our Fibre Because we Make It"

Leatheroid

THE FIBRE MILL EQUIPMENT THAT LASTS

Catalog Sent On Request



Style No. 1 Seamless Roving Can. Patented rolled fibre top. Equipped with 6-in. seamless kicking band. Steel bottom reinforced with steel ring. Style No. 2 made with polished steel top.



Combination Doffing Car. Has Fixed and loose box Casters with self-oiling wheels. All angles of box reinforced with steel and fastened with solid rivets.



Style No. 2 Warehouse Truck. Steel clad, lined with Leatheroid Fibre. Steel over wood top rim. Ribbed steel bottom band. Caster with self-oiling wheels.



Style No. 3 Mill or Factory Box. Steel over wood and all angles reinforced with steel and fastened with Solid Rivets top rim. Metal cut-in handle. Hardwood shoes with special steel protecting corners.



Illustration of special steel protecting corner angle.

ROGERS FIBRE COMPANY

1024 Filbert Street, PHILADELPHIA, PA.

SOLD BY SOUTHERN SUPPLY HOUSES

121 Beach Street, Boston, Mass.

78 Fifth Ave., New York



AUTOMATIC SPOOLING

The above picture shows an installation of 7 automatic spoolers and 4 High Speed Warpers in a well known mill, taking the place of 20 old style spoolers and 20 old style warpers. The floor space now occupied is 8045 square feet as compared with 15634 square feet required by the former equipment.

This installation is operated by 22 employees as compared with 45 employees required to operate the old style equipment.

Better Knots---No Spooler Kinks---Fewer Ends Broken in Warping---Better Slashing---Better Weaving

BARBER-COLMAN COMPANY

Boston, Mass.

ROCKFORD, ILLINOIS

Greenville, S. C.

The J. H. Williams Company Shuttle

has the endorsement of the Textile Industry. Our output—our large and efficient organization is evidence of this satisfaction.

Look for the Hallmark "J. H. Williams Company" on a shuttle. Look for it as you do "Stetson" in your hat. Ours is the highest standard of quality and workmanship. Every shuttle is planned with an eye to durability and strength. Each part is flawless and the coordination of parts is perfect. We market no seconds, every block unfit for shuttles is rejected. Our shuttle experts are at your service. Tell us of your shuttle troubles. Furthermore let us make up a few samples. This entails no obligation on your part.

The J. H. Williams Co.

The Shuttle People

Millbury, Mass.

HOYT'S TURTLE



Waterproof Leather Belting

Under hard service in the mill Hoyt's Turtle has stood the test of time. When subjected to water, moisture or other adverse conditions, this belting will not separate in laps or plies

Edward R. Ladew Co., Inc.

29 Murray St., NEW YORK

Ralph M. Lane With Anchor Post Iron Works.

Ralph M. Lane who, for a number of years has represented northern manufacturers among the textile mills of the South, has recently acquired the agency for Anchor Post Fences in the North Carolina district.

The selection should prove a happy one, for Mr. Lane in addition to possessing the knowledge and experience requisite to the efficient handling of the sales and service of a technical product, enjoys a wide acquaintanceship among mill executives in this territory.

The Anchor Post Iron Works manufacture and erect the well-known Anchor Post Wire and Iron Fences of all types, from the high protective factory fence to the low iron railing for residences.

The line posts of these fences are secured by driving the steel post into the solid ground and fixing it with two drive anchors, a device that obviates the difficulties and drawbacks of other methods of securing posts.

Among the many industrial installations of this firm in the South are such well known plants as those of the Union Bleaching & Finishing Co., Greenville, S. C.; Imperial Tobacco Co., Lake City, S. C.; Ware Shoals Mfg. Co., Ware Shoals, S. C.; Hans Reese Sons, Asheville, N. C.; Hopedale Cotton Mills, Burlington, N. C.; Imperial Tobacco Co., Durham, N. C.; Imperial Tobacco Co., Mullins, S. C.; Virginia Carolina Chemical Co., Charleston, S. C.; The Planters Fertilizer and Phosphate Co., Charleston, S. C.; Revolution

Cotton Mills, Greensboro, N. C.; Bellwill Cotton Mills, Wilmington, N. C.; Jas. N. Williamson Sons, Burlington, N. C.; Borden Mfg. Co., Goldsboro, N. C.; British-American Tobacco Co., Goldsboro, N. C.; Carolina Cotton and Woolen Mills, Spray, N. C.

The advisability of protecting factory property with heavy wire fences is becoming well recognized among mill owners.

Meserve Visits Southern Mills.

Dr. H. C. Meserve, of Boston, secretary of the National Association of Cotton Manufacturers, on a tour of the Southern textile centers, spent Tuesday in Charlotte.

Dr. Meserve was carried by a number of local men to Mt. Holly, Cramerton and Gastonia, and visited several mills in the vicinity of Charlotte. A trip was also made to the Southern Power Company's hydro-electric development at Mountain Island.

A luncheon at 1 o'clock, attended by about 25 of Gaston county's leading textile manufacturers, was tendered the eastern manufacturer at Gastonia Country club by the Gastonia Chamber of Commerce.

Dr. Meserve, commenting on his impressions of the textile industry in this section, stated that the North Carolina industry is going through what is comparable to the first 40 years of New England's 100 years history of textile manufacture. He was impressed, he said, by the spirit of hopefulness visible in the textile centers of the South and particularly in this section, where, he pointed out, the family group constitutes the unit in mill labor. The model mill villages and the care and thought expended by manufacturers for the comfort, sanitation and pleasure of the operatives, had made his trip, he declared, one of intense interest.

Compared with the crowded conditions under which textile laborers were forced to live in the east, Dr. Meserve declared the Southern operative's conditions were almost ideal. There seemed to him not to be any possibilities of the cities crowding in on the mill workers as had been the case in the larger centers in the east. The plan under which the mills here are constructed that, he said, forbid that.

The textile industry in this section, Dr. Meserve said, was yet but in its infancy. As in the automobile industry, which started in Detroit and rapidly spread all over the country, the mills must spread out and seek other locations in order that the living conditions set as a standard by manufacturers nowadays may be continued. He does not believe, however, that there will be any great changes in the eastern mills because of movement to the South, not, at least, for a long period of time.

Wool Consumption Higher.

Washington.—Wool consumption during February was approximately 5,000,000 pounds less than in January, but exceeded that of February, 1922, almost 4,000,000 pounds, according to the monthly wool consumption report, made public.

MI- CLEANSER

The Perfected, Non-Soluble, Cleaning, Polishing Cleansor, Deodorizing Scouring & Scrubbing Powder. "Six in One"



Trade Mark Reg. U. S. Pat. Office

Your Mill Supply House will furnish you Mi-Cleanser, or order direct from the factory.

Champion Chemical Co.

Charlie Nichols, General Manager
Asheville, N. C.

Knit Goods

Knitting Arts Exposition.

The nineteenth annual Knitting Arts Exposition opened in Commercial Museum, Philadelphia, on Tuesday of this week, the exhibition being under the auspices of the National Association of Hosiery and Underwear Manufacturers. The show closes Friday night.

The attendance this year exceeded that of any of the previous knitting shows and there were more exhibitors this year than ever before. The convention of the National Association of Hosiery and Underwear Manufacturers was held in connection with the exposition. Two business sessions and the annual banquet made up the program for the meeting.

Buyers from all parts of the country were present at the show, which this year was arranged to exhibit all phases of the knitting industry rather than a mere display of knitting machinery.

The program of the knitters' convention was a varied and interesting one, being marked by a number of addresses from some of the leading men of the knit goods industry. Nelson B. Gaskell, of the Federal Trade Commission, spoke on the subject of labeling, a subject which has been of particular interest during the past year or more when the government has directed special effort to curb mis-branded evils. Another speaker, S. A. Savage, of Viscoe Co., the largest manufacturer of artificial silk in the country, spoke of the growing importance of this phase of the industry. Frank L. Miller, president of the United Hosiery Mills, of Chattanooga, spoke of some of the manufacturing problems that affect knitters. John Wycoffe Mettler, of the Interwoven Stocking Company, discussed the problems of selling the retailers.

List of Exhibitors.

A list of the exhibitors who displayed their products at the Knitting Arts Exposition is given below:

Aberfoyle Manufacturing Co., Philadelphia; Acme Knitting Machine & Needle Co., Franklin, N. H.; Acme Steel Goods Co., Philadelphia; Ainslie Knitting Machine Co., Brooklyn, N. Y.; Jacob K. Altamus, Philadelphia; Ambler Textile Machinery Co., Philadelphia; American Bobbin Co., Philadelphia; American Fabrics Co., Bridgeport, Conn.

American Laundry Machinery Co., Cincinnati, O.; American Safety Table Co., Reading, Pa.; American Scrubbing Equipment Sales Co.; Hannibal, Mo.; American Wool and Cotton Reporter, Boston, Mass.; American Yarn & Processing Co., Mt. Holly, N. C.; Andreykoviez & Dunk, Inc., Philadelphia; Atwood Machine Co., Stonington, Conn.; American Dyestuff Reporter, New York.

Blackmer Rotary Pump Co., Philadelphia; Blodgett & Orswell Co., New York; Boger & Crawford, Philadelphia; S. Bolder & Co., Philadelphia; Charles Bond Co., Philadel-

phia; Boot & Shoe Recorder Pub. Co., Boston; B. F. Boyer Co., Camden, N. J.; Bradley Stencil Machine Co., Philadelphia; Bradley Wash-fountain Co., Milwaukee, Wis.; Bragdon Lord & Nagle Co., New York; H. Brinton Co., 3700 Kensington avenue, Philadelphia.

Canadian Textile Journal, Garden-vale, Que.; Cannon Mills, Inc., Philadelphia; Carwithen, Van Court, Philadelphia; Catlin & Co., Philadelphia; Cooley & Marvin Co., Boston; W. F. Corbett, Philadelphia; Cotton, Atlanta, Ga.; Crawford Mfg. Co., New Brunswick, N. J.; Albert I. Croll, Philadelphia; J. D. Cunningham, Philadelphia; Currier Needle Co., Manchester, N. H.; Clipper Belt Lacer Co., Grand Rapids, Mich.

Dixie Mercerizing Co., Chattanooga, Tenn.; Dubied Machinery Co., New York; E. L. du Pont de Nemours & Co., Philadelphia.

Eclipse Textile Devices, Inc., Elmira, N. Y.; Foster Machine Co., Westfield, Mass.; Eastman Machine Co., Buffalo, N. Y.; Ewing-Thomas Converting Co., Chester, Pa.

Fairchild Publications, New York; W. F. Fancourt & Co., Inc., Philadelphia; Fibre & Fabric, Cambridge, Mass.; Fidelity Machine Co., Philadelphia; Fletcher Works, Philadelphia; The J. B. Ford Co., Wyandotte, Mich.; Franklin Needle Co., Franklin, N. H.

Gastonia Cotton Yarn Co., Philadelphia; General Silk Importing Co., Inc., New York; Ryan L. Gilkey, Philadelphia; Grand Rapids Textile Machinery Co., Grand Rapids, Mich.; Grosser Knitting Machine Co., New York; Growfreed, Inc., New York.

Hawkeye Pearl Button Co., Muscatine, Ia.; The Haire Publishing Co., New York; Hampton Co., Eastampton, Mass.; Hellwig Silk Dyeing Co., Philadelphia; Hemphill Co., Pawtucket, R. I.; John W. Hepworth & Co., Philadelphia; Hineline Engineering Co., Pawtucket, R. I.; Charles E. Hires Co., Philadelphia; Louis Hirsh, Inc., New York; Howes Publishing Co., New York; Hussong Dyeing Machine Co., Groveville, N. J.; Hyde Rakestraw Co., Philadelphia.

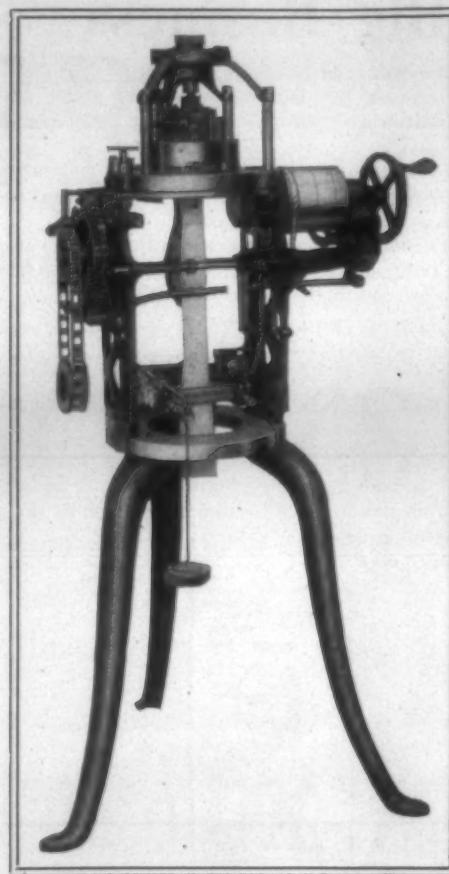
International Nickel Co., New York; Iroquois Silk Co., New York.

E. W. S. Jasper, New York; R. C. Jefferson Co., Philadelphia; Johnston Mills Co., Philadelphia.

Kali Mfg. Co., Philadelphia; Kaum-agraph Co., New York; Kaluder-Weldon Dyeing Machine Co.; Bethayres, Pa.; Knit Goods Publishing Corp., New York; Knitted Fabrics & Apparel, New York.

Laconia Needle Co., Laconia, N. H.; Percy A. Legge, Philadelphia; Leighton Machine Co., Manchester, N. H.; Oswald Lever Co., Inc., Philadelphia; Link-Belt Co., Philadelphia; David Lupton's Sons Co., Philadelphia.

H. Maimin Co., Inc., New York; Manufacturers' Supplies Co., Philadelphia; Clarence E. Mason Co., Philadelphia; Matheson Alkali Works, Inc., Philadelphia; Merrow Machine Co., Hartford, Conn.; Clarence L. Meyers, Philadelphia; The W. S. Mills Co., Bridgeport, Conn.; James E. Mitchell Co., Philadelphia;



BRINTON RIBBERS

possess all modern improvements, including selvage welt, French welt, double knee, dogless and stripping attachments, with automatic stop motions.

Built in all sizes, for all classes of rib work.

We also build hosiery knitters and Body machines for underwear and various other circular machines for all kinds of knitted articles.

Samples and Prices on Request

H. BRINTON COMPANY
Philadelphia Pennsylvania

Big Business

Because of the enlarged program of manufacture that present day conditions demand, the manufacturer who plans wisely and builds on a foundation of "quality" production can command "Big Business."

So definite is this trend toward quality that textile manufacturers are using every effort to produce the highest possible quality in fabrics at a reasonable production cost.

In order to accomplish these results mill men are more than ever before depending upon the distinctive work which the special purpose alkalies

WYANDOTTE TEXTILE SODA
WYANDOTTE CONCENTRATED ASH
WYANDOTTE KIER BOILING SPECIAL

accomplish.

Protection to the tensile strength of the fibres, thorough cleansing of the fabrics permitting more even spreading of dyes and that soft, lofty feel which denotes quality are indications of the efficient work of these quality products.

Ask your supply man.



The J. B. FORD CO.

Sole Mfrs.

Wyandotte Michigan

John W. Hepworth & Company

N. W. Cor. Lehigh Ave. and Mascher Street
PHILADELPHIA, PA.

Makers of

Two-Thread Elastic Lock Stitch Looper

Also Attachments

for changing our
single stitch
loopers into the
two-thread
loopers.



Morris & Co., Inc., Groveville, N. J.; L. P. Muller & Co., Philadelphia.

Narrow Fabric Co., Reading, Pa.; National Aniline & Chemical Co., inc., New York; National Bundle Tyer Co., Blissfield, Mich.; National Marking Machine Co., Cincinnati, O.; New England Butt Co., Providence, R. I.

Oakley Chemical Co., New York; Oberly & Newell, New York.

Paramount Hosiery Form Drying Co., Chicago; Paulson - Linkroum Co., Inc., New York; The Permutit Co., New York; Philadelphia Drying Machinery Co., Philadelphia; Philadelphia Gear Works, Philadelphia; Philadelphia Metal Drying Form Co., Philadelphia; Plowman Yarn Co., Philadelphia; T. J. Porter & Sons Co., Philadelphia; Proctor & Schwartz, Inc., Philadelphia; Prosperity Co., Inc., Syracuse, N. Y.

Quaker City Felt & Supply Co., Philadelphia.

Roessler & Hasslacher Chemical Co., New York; Rogers Fiber Co., Boston; Rose Patch & Label Co., Grand Rapids, Mich.; Royal Metal Mfg. Co., Chicago.

Sandoz Chemical Works, Inc., New York; San-Knit-Ary Textile Mills, Inc., Philadelphia; Schell Longstreet & Co., Philadelphia; Edwin J. Schoettle Co., Philadelphia; Scholler Bros., Inc., Philadelphia; Henry L. Scott & Co., Providence, R. I.; Scott & Williams, Inc., New York; Seaboard Lithographing Co., New York; J. W. Shadloy, Needham, Mass.; J. L. Shoemaker & Co., Philadelphia; C. E. Shoels, New York.

Smith Drum & Co., Philadelphia; Walter Snyder Co., Philadelphia; Southern Mercerizing Co., Tryon, N. C.; Southern Textile Bulletin, Charlotte, N. C.; Southern Textile Machinery Co., Paducah, Ky.; William Spiers Leicester, England; Standard-Coosa-Thatcher Co., Philadelphia; Standard Machine Co., Philadelphia; Sweater News & Knitted Lingerie, New York; B. F. Sturtevant Co., Hyde Park, Mass.

Taylorville Cotton Mill Co., Philadelphia; The Textile American, Boston; Textile Digest, Philadelphia; Textile Machine Works, Reading, Pa.; Textile Yarn Co., Charlotte, N. C.; Tolhurst Machine Works, Troy, N. Y.; Trump Bros. Machine Co., Wilmington, Del.; the Torrington Co., Torrington, Conn.

Underwear and Hosiery Review, New York; Union Special Machine Co., Philadelphia; United States Hocman Machinery Corp., New York; United States Thread Co., Philadelphia; Universay Cutter Co., St. Louis, Mo.; Universal Winding Co., Boston.

Valkone Dye & Finishing Works, Philadelphia; A. P. Villa & Bros., Inc., New York.

James F. White & Co., Inc., Philadelphia; William Whitman Co., Inc., Boston; Wildman Mfg. Co., Morristown, Pa.; Wilcox & Gibbs Sewing Machine Co., Philadelphia; Chauncey A. Williams, Manchester, N. H.; Jacques Wolf & Co., Passiac, N. J.; Alfred Wolstenholme & Son, Inc., Philadelphia; Thomas Wolstenholme Sons & Inc., Philadelphia.

A. H. Zayoti & Co., Philadelphia; Walter R. Zeigler, Riverside, N. J.

Prominent Textile Men Visit Mills.

Five prominent New England cotton manufacturers, on a visit

through industrial sections of the South, were entertained in Charlotte at dinner Monday night at the Southern Manufacturers Club by Rogers W. Davis, Southern representative of the Saco-Lowell shops, after a trip to Gastonia and Belmont mills by the party and a stop at the Mountain Island hydroelectric development near Mt. Holly. In the party of New Englanders were William M. Butler, of the Butler Mills, of New Bedford, Mass.; Albert T. Smith, of New Bedford; associated with Mr. Butler in the ownership of a half dozen big mills; Thomas Glennon, of the Quissett Mills, of New Bedford; J. O. Thompson, of the New England Cotton Mills corporation, and Mr. Barrow, secretary to Mr. Butler.

The New Englanders, accompanied by Winston D. Adams, secretary of the American Cotton Manufacturers Association, Mr. Davis, John Paul Lucas, of the Southern Public Utilities Company, and several others, motored Monday to Gastonia and Belmont for a visit of inspection through the Gaston county mills. They were entertained for luncheon at the Gastonia Country Club, and returned to Charlotte for dinner at the Southern Manufacturers club, with Mr. Davis as host.

England Buys U. S. Knitting Machinery.

Washington.—England was the largest purchaser of United States knitting machines during January, 1923, receiving 394 in number valued at \$109,162, according to a detailed report on textile machinery exports during January issued here by the Department of Commerce.

France, the figures show, received the second largest amount of knitting apparatus during the aforementioned month, 194 machines worth \$65,137 being shipped. The largest amount of cotton looms were exported to Japan, the total being 207 valued at \$15,744. Colombia received second highest amount of weaving equipment—108 in number worth \$42,419. Japan also received the largest number of cotton carding machines—eight in number valued at \$2,691. Under the classification of other cotton machinery, Canada and provinces secured the largest amount—176,603 pounds estimated at \$43,090.

S. M. Sloan Locates in Greenville.

S. M. Sloan, Southern representative of the American Supply Company of Providence, R. I., is now located in Greenville after being absent from South Carolina for a number of years.

The American Supply Company has a general line of mill supplies and Mr. Sloan is moving the headquarters of the concern from Charlotte to Greenville.

Mr. Sloan is well known in Greenville, having been associated with the F. W. Poe Manufacturing Company for two and one-half years after graduation from Clemson College, and through friendships made during the six years he was Chief Inspector for the State Department of Agriculture and Commerce with headquarters in Columbia.

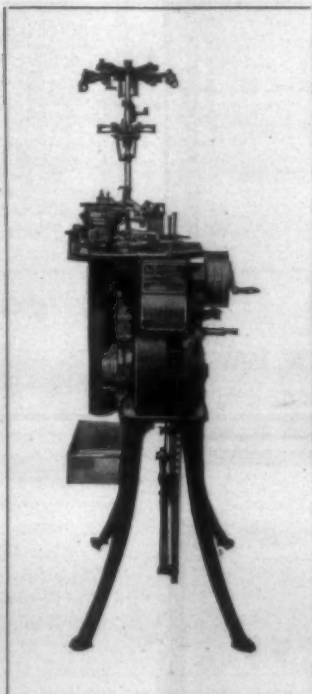
BANNER

FULL AUTOMATIC

HOSIERY MACHINES

Speed
Simplicity

—
All
Sizes



Production
Quality

—
All
Guages

We are now prepared to make prompt deliveries on two new modles, the *Banner Spring Beard Needle* and the *Banner Split-Foot* machines, built in sizes 3 1-4" 3 1-2" and 3 3-4", either 48 or 54 guage.

HEMPHILL COMPANY

MAIN OFFICE AND PLANT
PAWTUCKET, R. I.

PHILADELPHIA OFFICE
Colonial Trust Bldg.
Rooms 208-9-10

CHATTANOOGA OFFICE
James Building
Rooms 912-13

BUDD PRODUCTS

BOILER FRONTS

Buckstays
T Covering Bars
Floor Plates
Doors
Door Liners

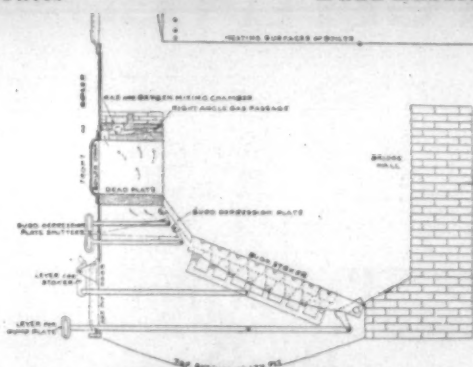
GRATES

Budd Stationary
Grates
Herringbone Grates
Straight Grates
Universal Shaking
Grates

Pin Hole Grates

Budd Dumping
Grates.
Budd Stationary Cir-
cle Grates
Budd Circular Dump-
ing Grates
Old Style Circle
Grates

Firestone Furnace
Cement
Budd Babbitt Metal



THE NEW BUDD FURNACE

BUDD GRATE COMPANY
2011-25 East Hagert St. PHILADELPHIA, PA.
E. S. Player, Manager Greenville, S.C. office

"BRETON" MINEROL "F"



For
Cotton
Piece Goods

"It gives a softer finish"

BORNE, SCRYMSER CO.

Established 1874

80 South Street, NEW YORK

BOSTON

PHILADELPHIA

Works: Elizabethport, N. J.

Overseer to Superintendent

Raising The Nap.

During the production of the nap or pile on the cloth two important things are accomplished. One is the lifting of the loose fiber from the surface of the texture for the purpose of forming a nap or pile. The other is the clearing out effect that the points of the teasels have on the cloth in the process of gig-

If a point of the natural teasel catches in a knot or snarl in the swiftly passing cloth, the point is sufficiently elastic to bend and release the texture without damage. But the non-elastic steel point clings to the knot or snarl until the latter breaks or the cloth tears. The points of the teasel are just stiff enough to raise the nap of the cloth without tearing it. This makes the teasel exceedingly valuable to the textile finishing industry. The action of the teasel points on the fibrous condition of the texture is similar to the action of the old style hand cards which were used for raising purposes. One of these cards is shown in figure 2. While out of date, these cards may be seen in many finishing departments where they are used to draw the fibers across the goods in the direction opposite to that of the gigging machinery when such action is needed. The hand comb is also useful for going over places which may have not been thoroughly raised on the machines. The hand comb is made with wire card clothing tacked to the wooden back and the points in the clothing are utilized the same as the points of the teasel.

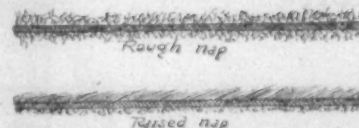
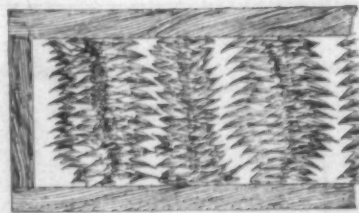
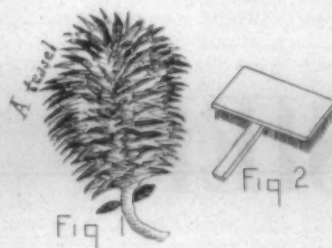
Experience is necessary in order to set the teasels properly in the slats of the gigging machines. Figure 3 is a section of a slat fixed with a number of teasels. The teasels are placed on the head and tail order.

That is, one teasel is set in with its head up and the next one with its head down. This presents a series of points in two directions. There are some goods that require raising with the teasels set in the one direction. But as some cloth is reversed in its directions, the slats containing alternating teasels are frequently used. When it is necessary to get a nap with the fibers extended in one direction, the cloth is run back on the gig without coming into contact with the teasel points.

Figure 4 presents specimens of cloth shown in cross section for the purpose of illustrating the nap in process of making. Usually the cloth is covered with a straggling mass of fibrous material in the condition shown in the sample marked "Rough nap." The object of the gigging is to further raise the fibers and also to arrange them in a common direction as shown in the sample marked "Raised nap." In the former sample the fibers do not lean in any common direction nor do they extend as far from the body of the texture as in the latter sample. It would not be possible to get a fine, even face on any goods finished in the condition shown in the rough state. There are of course many kinds of fabrics that are finished without treatment of the nap. Some fabrics are deprived of the surplus straggling fibers on the face by singeing them off.

Pile Effect.

Goods requiring a pile effect for the face have to be treated differently. In the case of the common fabric, the nap is raised to the required proportions and it is then



ging. The fabric is freed of considerable loose matter by the continuous action of the teasels. But the important change is the transformation of the hard, level surface of the cloth to a soft, downy feel by putting a nap or pile on. There are two kinds of raising termed wet and dry. Dry raising roots up the fibers of the cloth and leaves them in the horizontal condition for the finishing processes. In the wet raising process the fibers are not left in the upright position, but are spread evenly over the surface of the fabric. This work is accomplished on the gigging machine, composed of a large cylinder in which the teasels are fixed with their points projecting in such a way that the fibers of the cloth passing the front of the cylinder are taken hold of and raised above the level of the surface of the cloth. The high speed of the cylinder running in the opposite direction of the cloth results in slowly raising the nap as the latter is brought into contact with the teasels fixed in metal slats in the cylinder. Figure 1 shows a teasel in which the protruding points can be seen.

Many patents have been taken out by men who have attempted to substitute the natural teasel point with steel points set in frames after the fashion of card clothing wire. Many of the invented devices have produced a nap on the goods but owing to the stiffness of the metallic points the cloth has been damaged.

sheared off on the shearing machines so as to get an even surface.

Most lines of dress goods are sheared close, and then pressed. But if a pile is wanted, the shearing cylinders are adjusted to cut a long pile is shown in the sectional sample marked "Pile effect" in figure 4. The object is to get a clear, smart surface on the goods and this is accomplished when the nap is evenly cut.

If the goods were finished without raising the nap, the bare, thread-like appearance of the texture would not appeal to consumers. The stirring effect of the teasels in the gigning process tends to cover many defects that would otherwise appear in the goods. The raising process is depended upon to cover inferior qualities of yarns sometimes used in conjunction with high grade stock.

Urges Conference on Fine Goods.

Dallas, Texas.—The problem of selling raw cotton and cotton goods profitably cannot be solved merely on the basis of economic advantages, said M. D. C. Crawford, design editor of the Fairchild Publications, in an address today before the Texas Cotton Growers' Association at the Adolphus Hotel here.

Expansion of the Southern mill industry and the present trend of production away from New England, he characterized as transitory.

"I am willing to admit," he explained, "that if the cotton industry does not have a change of heart and that very soon, if it does not take its problem with a little more vigor, the cotton industry will move from its home of a century and a half to the South.

"It will go even further," he added, "for the arguments advanced in favor of the Southern States as they apply to the cost of labor and the absence of unions, will very rapidly change with the great intrusion of Eastern industries. Mexico, Central America, will then lure on the argonauts.

"Economic advantages of production are constantly shifting. The lasting problem before the cotton mill industry is studying the introduction of better designs and finer textures.

"What has been done to cotton to raise it in public estimation?

"Has ever a style been built upon its beauty, its splendid native qualities or its distinguished history in the arts? For centuries it was the delight of gracious ages, it has vied with silk and wool on even terms of artistry. What has been done to broaden its use, to find new fields for it to conquer?

"The situation as far as cotton is concerned is summed up in the remark made to me by one of the most intelligent young executives of a great retail store in the Middle West. It was just after this store had done more to arouse interest in cotton than all the cotton mills in America for a longer time than I like to remember.

"He said: 'Do something that will make every woman stop asking either actually or potentially. There isn't any cotton in this fabric, is there?'

Mr. Crawford went on to criti-

cize the New England combed yarn industry for its failure during the war to grasp the opportunity then offered to gain a permanent footing in the world production of fine cottons.

"At that time France and Germany were at death grips in the region from which most of the world's fine cottons had previously been exported. From this region \$250,000,000 worth of fine cottons had been exported all over the world.

"Not all of it but at least two-thirds of it could have been manufactured in New England. What was New England's answer to this opportunity? The most spectacular, most asinine speculation in automobile tire yarns that would have left in its train a path strewn with disaster, but for the great wealth involved and the steady and persistent and little recognized help of the great banking organization of New York, Chicago and Boston.

"Actually the grades of cotton fabrics decreased during this period of opportunity. I was looked upon as a visionary because I thought the world needed fine cottons. I lived to see the time when New Bedford mills were idle and merchandise was coming to this country from war torn England that could have been easily manufactured on her looms. At that time I tried to find out from my friends in New Bedford who really was crazy.

"We have in New York, besides many other excellent institutions, two great museums, one the American Museum of Natural History and the other the Brooklyn Institute Museum. To them I went with this problem: What can we do to show the cotton industries and the closely related garment industries the art possibilities of cotton?

"The result was a small exhibition consisting of cotton fabrics of historic authenticity and artistic merit which was shown in the Cotton Show in Greenville, S. C. To my astonishment I found that the retail stores of America had a great interest in it and wished to have an opportunity to show it to their public. I was impossible or inadvisable for either the newspaper I represent or the museums I am associated with to carry on this exhibition or to develop it in its new phase without the co-operation of the modern industry. I therefore, called back the first exhibition, and prepared its successor with great care. Since then the history of this exhibition has been broad indeed. Ninety cities have asked for it. If we allowed it to continue the even tenor of its ways it would be absent from its owners for about three years.

"If the great retail stores of America are willing to give valuable space, energy and advertising power to an exhibition such as I have briefly outlined here, with how much greater enthusiasm would they receive an exhibition that covered every phase of the living industry as well as the dead art.

"One mill or one group of mills cannot accomplish much. No group of growers or merchants through any plea whatsoever can do anything but waste time and money unaided. What is needed is a meeting of all interests with a common

(Continued on Page 26.)

The Liberty Knotter



is something absolutely new. It is a Southern product made for Southern mills by Southern people, who know the requirements and have provided for them.

GUARANTEED FOR ONE YEAR

Write for Information

Mill Devices Co. Durham, N. C.

A. B. CARTER, Sales Agent, Gastonia, N. C.



As It Is Wound—So It Delivers!

A true cone winds a perfect package without waste — a package that also *delivers without waste*: "Sonoco" Cones are made *Invariably True* by our patented, automatic processes.

Try a shipment and watch your cost sheet!

"Sonoco" Cones and Tubes

Southern Novelty Co., Manufacturers
Hartsville South Carolina

SOUTHERN TEXTILE BULLETIN

Member of Audit Bureau of Circulations.

Published Every Thursday by
CLARK PUBLISHING COMPANY
Offices: 39-41 S. Church St., Charlotte, N. C.

DAVID CLARK.....Managing Editor
D. H. HILL, JR.....Associate Editor
JACK W. COCHRAN.....Business Manager

SUBSCRIPTION
One year, payable in advance.....\$2.00
Other Countries in Postal Union.....4.00
Single Copies......10

Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

ADVERTISING
Advertising rates furnished upon application.
Address all communications and make all drafts, checks and money orders payable to Clark Publishing Company, Charlotte, N. C.

THURSDAY, APRIL 5, 1923.

The Wage Advances.

In the face of stagnation in the cotton goods market and at a time when cotton mill operatives are so plentiful that all of them can not be given regular employment, there has been a movement throughout the Southern mills for wage advances approximating, in most cases, ten per cent.

This movement confirms our frequent statement that the mills of the South are willing and ready to advance wages whenever conditions justify same.

The wage advances have not been uniform as some mills had already made adjustments and could not be expected to make others and some mills are not yet operating at reasonable profits.

The labor union agitators, realizing that some advance was probable have been very active in a few localities and are trying to get some credit, but as mills with non-union employes advanced wages just as much as those where the operatives still contribute to the support of the Thos. Failure McMahon gang, it is difficult for them to convince the hard headed operatives that the union was due any credit.

The few operatives in North Charlotte who still take money from their pay envelopes and give it to Harry Etaugh and Mary Kelleher in order that they may live without working received no more advance than the operatives at Kanapolis who refused to be bled any longer by the McMahon parasites.

The cotton mill operatives of the South are of the same blood as the mill owners and both can be depended upon to do the fair thing in advancing wages in prosperous times or accepting reductions in times of depression.

Almost without exception the agitators who came among our operatives and seek to turn them against their employes, were born on foreign soil.

Gompers, Golden, McMahon, Etaugh and all of their tribe came to America to escape the conditions in their own country and hav-

ing landed on our shores they have the nerve to try to tell our native born, pure blooded Anglo-Saxon operatives how they should conduct themselves.

It has been years since any of these foreigners have worked, if they ever did work, but these foreign born parasites go here and there over the country taking money from workers and living in comparative luxury.

As soon as they milk one section, they move to another, always finding enough dupes to contribute to their fat salaries and expenses.

When the mill operatives of the South feel that wage advances are due they can discuss the matter face to face with the managers of the mills without the assistance of foreign born parasites.

In the present case, the advances were given voluntarily and the mills are glad that they were in position to make them.

Dr. Armstrong Brays.

Considerable resentment has been created throughout Southern mills by a recent statement of Dr. Donald B. Armstrong, executive officer of the National Health Council of New England.

Speaking at a Boston Chamber of Commerce luncheon, Dr. Armstrong declared that the Northern climate is better for the manufacture of cotton than the South, even at a somewhat higher rate of wages, when only 2 per cent of the help are ill at any one time, as against a continuous illness rate of 10 per cent in the South.

He said that "safety first" may be a good motto for the business, but "health first" is a slogan by no means without commercial value and should be considered in connection with the relative value of New England and the South as manufacturing centers.

Like most men who speak upon subjects of which they have little knowledge, Dr. Armstrong showed his likeness to the animal upon which Balam made his famous journey.

There is, of course, no truth in his statement but like a straw to a drowning man or a drop of water to a desert wanderer, it brought joy to the New Englanders who have for months been regaled with stories of the advantages of the South.

Dr. Armstrong says that ten per cent of the cotton mill operatives of the South are continuous sick but in our opinion Dr. Armstrong is as the negroes say suffering from "misery in his haid" and we suggest that he take steps to cure himself before talking about others.

When he spoke before the Boston Chamber of Commerce it was as the braying of an animal with long ears.

Dr. Hayne Answers Dr. Armstrong.

Dr. Jas. A. Hayne, State Health Officer of South Carolina, when he read the statement of Dr. Donald B. Armstrong before the Boston Chamber of Commerce wired him as follows:

"In re your statement Southern population is malaria and hookworm ridden with 10 per cent continuous illness rate—wire your authority for such statement."

It didn't take Dr. Armstrong long to reply. He denied having made the statement.

His wire to Dr. Hayne from New York was as follows:

"Did not say Southern population was malaria ridden etc. Did try to indicate that business men in selecting community for industrial development should consider health conditions as well as labor supply, railroad facilities, etc. Letter follows."

Dr. Hayne has also taken up the matter with James A. Tobey, Washington, D. C., secretary of the National Health Council. Dr. Hayne wired this official as follows:

"What I consider a slanderous statement was made by Dr. Donald B. Armstrong, of the National Health Council in an address made in Boston, March 29. He states that there is a 10 per cent continuous illness rate in the South and that the South is malaria and hookworm ridden."

"I desire to know the authority for such statement as it is untrue of South Carolina."

"If this is the policy of the National Health Council I desire as state health officer of South Carolina to sever my connection with the council."

Health officers of Arkansas, Florida, Kansas, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, Tennessee, Texas, Virginia and West Virginia and other states were also communicated with by Dr. Hayne, who was determined that Dr. Armstrong should give his authority for the statement.

"Does any sensible person think that 170,000 people in South Carolina are kept in bed from illness all the time? Yet that is what this statement of Dr. Armstrong means—he says that we have a 10 per cent illness rate."

"Spartanburg county is one of the big textile counties of the state. Yet Spartanburg's death rate is 10 per 1,000 of population. Can Massachusetts make as good a showing?"

"The death rate for 1923 for the United States was 11.5 per 1,000."

The death rate in some of the textile counties in South Carolina for 1923 are as follows: Spartanburg, 10.1; Greenville, 11.9; Anderson, 11.3; Cherokee, 11.6; Union, 7.7; Aiken, 11.6; Lancaster, 10.2; Chester, 8.8; Fairfield, 10; York, 10.9; Richland, 17.7. In respect to Richland it should be kept in mind that the State hospital is located in the county and that the death rate there is high. These figures will show something of health conditions in the state.—Columbia State.

John Linder.

John Linder died last Monday from a paralytic stroke and to the textile industry of today the name of John Linder is unknown.

Years ago, when the editor of this journal was a weaver in the Charlotte Cotton Mills, now long since dismantled, John Linder was carder and spinner in that mill and the acquaintance and friendship that began then has continued throughout the years.

He was of the old type of mill overseer and as the industry developed he sought other lines of work, finally becoming a member of the police force of Charlotte and we have often chatted with him on his beat relative to the days of the old Charlotte Cotton Mill.

We take this opportunity to pay a tribute to the memory of an old friend even though he passed from the textile industry many years ago.

Cloak Found in Sweden Thought to be 3,000 Years Old.

London, Eng.—Leading European archeologists express the opinion that a woolen garment discovered by peat cutters in Gerum Fen, near Skara, Sweden, is one of the oldest ever found in Europe. It lay only a few feet under the surface of the peat, but the preserving qualities of the fen water kept it intact, scientists believe, for about 3,000 years.

Although it is said to be the first complete garment ever found, the British museum possesses several pieces of cloth dating from even earlier periods.

Statement.

Of the ownership, management, circulation, etc., required by the act of Congress of August 24, 1912, of Southern Textile Bulletin, published weekly at Charlotte, N. C.

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher: Clark Publishing Co., (not inc.) Charlotte, N. C.
Editor and Managing Editor: David Clark, Charlotte, N. C.
Business Manager: Jack W. Cochran, Charlotte, N. C.

2. That the owners are: David Clark, sole owner, Charlotte, N. C.

3. That the known bondholders, mortgages, or other securities are: ers owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

JACK W. COCHRAN,
Business Manager.

Sworn to and subscribed before me this 2nd day of April, 1923.

W. M. Bell, Notary Public.

Personal News

S. R. Green has become night carder at the Linford Mills Belmont N. C.

J. D. Lingerfelt has been promoted to second hand in spinning at the Climax Spinning Co., Belmont, N. C.

Vick Bumgardner has become overseer spinning at the Linford Mills, Belmont, N. C.

M. G. Smart has been promoted to second hand in weaving at the Florence Mills, Forest City, N. C.

W. M. Medlin, of Concord, N. C., is now second hand in spinning at the Diamond Mills, Salisbury, N. C.

Hugh Ballard, of Mt. Holly, N. C., has accepted the position of overseer spinning at night at the Linford Mills, Belmont, N. C.

N. H. Welsh has been promoted from overseer of weaving to superintendent of the Florence Mills, Forest City, N. C.

F. Y. Hambrick has been promoted from second hand to overseer of weaving at the Florence Mills, Forest City, N. C.

J. W. Allen, of the Mobile Mills, Mobile, Ala., has become overseer spinning at the Avondale Mills, Alexander City, Ala.

W. D. Starvis, of the Victory Mills, Gastonia, N. C., has become second hand in carding at the Crescent Spinning Co., Belmont, N. C.

F. L. Bumgardner has been promoted from second hand in day time to night overseer spinning at the Climax Spinning Co., Belmont, N. C.

W. R. Thigpen has resigned his position with the Washington Mills, Fries, Va., to become overseer of finishing at the Stonewall Cotton Mills, Stonewall, Miss.

R. T. Grant, Southern manager of the United Chemical Corp., spent last week in the home office in Jersey City. Mr. Grant reports a fine volume of Southern business at this time.

British Yarns Under U. S. Despite Tariff.

New Bedford.—Frederick B. Macy & Company say in their weekly yarn letter:

"Uncertainties growing out of the wide fluctuations of the raw cotton markets kept the cotton yarn markets relatively quiet during the past week. In spite of the practical certainty that wage increases throughout the spinning industry are going to boost the cost of yarn production and will eventually be reflected in yarn prices, buyers are not inclined to make any attempt to forestall the rise and deem it more important to maintain a very conservative position than to anticipate possible future needs by buying now to avoid an increase in yarn cost. The weakness of cotton futures has revived a

dyeing hope of lower yarn quotations, but the spinners for the most part have refused absolutely to shade current quotations even a fraction of a cent.

"Inquiry fell off last week as compared to the previous week, and was mostly very small lots. Sales were very light and chiefly involved weaving yarns for reasonably nearby delivery. Second hand offerings were not much in evidence however, in spite of the decline in cotton, and this fact was regarded as very encouraging, in that it indicated very little speculation in yarns is now going on.

"Offerings of fine combed yarns imported from England were in evidence in some quarters, and the prices at which they can be had, despite tariff duties, are actually lower than rock bottom costs of American-made yarns of similar numbers, particularly if the 12 1-2 per cent increase in labor costs is figured in. These English yarns, of course, are very fine, running from 100s up, and for this class of goods the proposed jump in wages in the New England yarn mills will put the American spinners virtually beyond hope of being able to compete.

"There is every reason, economically speaking, why yarns should go higher and not lower, and some of the spinners are at a loss to explain why yarn buyers do not see this and anticipate their future wants before prices advance. While sold up for the immediate future, and not forced to seek further business just now to keep going, the spinners would very much like to enlarge their commitments to cover the balance of their production for the rest of the current cotton season, so that they might cover their old crop cotton requirements now before prices get too high. It is quite possible that demand will improve greatly just as soon as the cotton market takes a sharp upward turn, and this development may not be very far off."

Frederick W. Bradley Dead.

Frederick W. Bradley, New England manager of Borne, Scrymser Company, New York, Boston and Philadelphia, died suddenly at his office, 36 Central Wharf, Boston, on March 20th. Mr. Bradley has been manager at Boston since the branch was started. He was a graduate of the Massachusetts Institute of Technology.

WANTED—Thoroughly competent, experienced man to take charge of Bleachery on wide sheetings. Good opening for the right man. Give references and state experience in detail. Address D., care Southern Textile Bulletin.

DRAW-IN only one time and change to any cloth when you weave with

"DUPLIX"

Flat Steel Loom Harness

STEEL HEDDLE MANUFACTURING CO.

GREENVILLE

PHILADELPHIA

PROVIDENCE

Southern Office

509 Masonic Temple, GREENVILLE, S. C.

Hampton Smith, Sou. Mgr.

N. B.—We are the sole manufacturers of nickel plated drop wires for every kind of loom.

Starch



—and these Stars
have a meaning

They signify the different grades in which Thin Boiling Eagle Starch is offered to the textile industry.

Being the pioneers in the manufacture of Thin Boiling Starches, we are gratified at the widespread recognition they have received.

Be sure to select the grade best suited to your work. Our knowledge and experience is at your service.

CORN PRODUCTS REFINING CO.
New York

Southern Office: Greenville, S. C.

Starch

MILL NEWS ITEMS OF INTEREST

Charlotte, N. C.—The Highland Park Cotton Mills will erect an addition to cost \$10,000,000.

Lenoir, N. C.—The Caldwell Cotton Mill, a new company, has been incorporated by Mark Squires, R. L. Gwyn, and B. R. Hayes.

Mt. Holly, N. C.—The Tuckasee Manufacturing Company is erecting a stand pipe at its mill near here, to be 60 feet high and have a capacity of nearly 1,000 gallons. The mill is also planning to install new machinery in the addition recently built, which will double the output of the factory.

Winston-Salem, N. C.—Lockwood, Greene and Company, of Charlotte, N. C., and Boston Mass., are the engineers on the five-story office building to be erected by Hugh Chatham of Winston-Salem, N. C. The building is to be erected in Charlotte, N. C., and will be occupied by the Southern Bell Telephone Company.

Macon, Ga.—Bibb Manufacturing Company let contract for village improvement work at Porterdale village as follows:

E. Martin Co., Covington Ga., street grading.

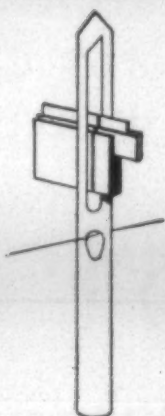
Dysard Construction Co., Atlanta, Ga., complete storm drainage system, side walks, walls, curb and gutter. Plans and supervision by E. S. Draper, Landscape Architect and City Planner, 11 E. Fifth Street, Charlotte N. C. D. C. Dinsmore, resident engineer.

Tuscaloosa, Ala.—The industrial committee of the chamber of commerce has reported that Tuscaloosa has a good chance of securing the location of a cotton mill to employ about 2,000 persons at the start and at least 3,000 people eventually. The name of the corporation with which negotiations are being carried on was not disclosed for obvious reasons.

Dunn, N. C.—Contract has been let for the erection of a 40,000 spindle denim mill at Duke, four miles west of Dunn, by the Erwin Cotton Mills Company which company already has a 36,000 spindle denim mill in operation there.

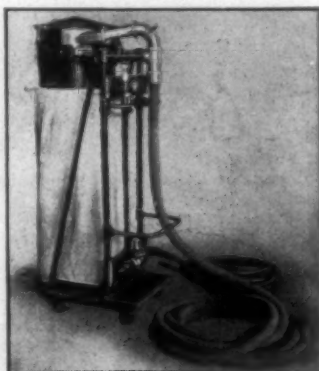
Material has already been provided for the erection of the new mill, which will be one of the largest in the state. When this new mill begins operation the Erwin Cotton Mills Company, of which W. A. Erwin, Sr., is treasurer, will have approximately 200,000 spindles in operation in North Carolina.

The erection of the new yarn and weave mills will necessitate the erection of more warehouses and a large number of dwellings to take care of the increased production and population. The present population of the Duke mill village is about 2,000 and with the new mill it will be increased to about 5,000. Machine is from 100 to 150 per cent.



The K-A Electrical Warp Stop Motion is being installed by a well known Southern woolen mill on automatic worsted looms.

R. I. Warp Stop Equipment Co.
301½ West Trade Street
Charlotte, N. C.



(Patented)
R. P. SWEENEY
Manufacturer
406 News Bldg. Greenville, S. C.

THE Sweeny PNEU-WAY Cleaner

Rapidly Cleans Machinery, Floors, Walls, Etc., of Lint and Dust by Air Suction

Uses compressed air to create the suction.

For Textile Mills and Other Industrial Plants

Ask for Prices on:
Ingersoll-Rand Air Compressors,
Air Hoists and Air Tools of all kinds,
Compressed Air Hose, Vacuum Hose,
Quick Connecting Hose Couplings,
Centrifugal Pumps.

Catalogues on Request

MOTORS—on Hand

- 1—125 H. P. General Electric, 2200 volt, 600 r. p. m.
- 1—100 H. P. Westinghouse, 550 volt, 690 r. p. m.
- 1—75 H. P. General Electric, 2200 volt, 900 r. p. m.
- 1—50 H. P. General Electric, 2200 volt, 875 r. p. m.
- 1—15 H. P. General Electric, 550 volt, 1200 r. p. m.

Used, good condition.

Also Robbins & Myers new Motors, from 50 H. P. to 1-10 H. P., 220 and 550 volts.

SOUTHERN TEXTILE MACHINERY COMPANY
Greenville, S. C.

Member American Society Landscape Architects

E. S. DRAPER

CHARLOTTE

NORTH CAROLINA

LANDSCAPE ARCHITECT and CITY PLANNER

Community and Mill Village Developments
Parks, Real Estate Subdivisions and Cemeteries
Resort Hotels and Country Clubs
Private Estates and Home Grounds

Complete Topographic Surveys
General Designs, Planting, Grading and Detail Plans
Supervision of Landscape Construction
Inspection and Maintenance

Largest Landscape Organization in the South

Spartanburg, S. C.—The Pacific Mills paid \$291,200 to A. B. Groce for the tract of 787 acres of land they purchased at Groce Station, Spartanburg county, recently, for the erection of their \$5,000,000 bleachery plant.

The first unit to be erected on the property at Groce by the Pacific Mills Company will be a building 672 feet long by 210 feet in width and five stories high.

York, S. C.—Kings Creek, a station on the Marion and Kingsville division of the Southern railway, situated in Cherokee county a few miles from the York county line, is to have a cotton mill. A. W. Love, merchant and extensive farmer of Kings Creek, is promoting the enterprise and the prospects are bright for its consummation. Subscriptions to the capital stock of the projected mill already approach \$100,000, with the canvass just begun of the adjacent territory. Mr. Love was in York in the interest of the enterprise.

Gaffney, S. C.—Work of erecting the huge 100,000-gallon steel reservoir at the Gaffney Manufacturing Company's plant in this city has been completed and officials of the mill say that they expect to turn the water into the new reservoir within about one week. The steel tank is yet to be painted, and then a few underground connections made, but practically all of the construction work is finished. Mill officials say that the new reservoir became necessary by reason of expansion of the mill, and the additional fact that it will supply the mill with better and much needed fire fighting facilities. Largely, however, the new reservoir will be used for supplying water for the humidifier and sprinkling system.

Shelby, N. C.—Failure to get a contract with the Southern Power Company, for electric power with which to run a proposed new 5,000 spindle mill at Waco, four miles west of here, has caused D. P. Rhodes, of Lincolnton, to withdraw his proposition to build a textile plant at that point if the citizens would subscribe to a specified amount of stock.

The Waco citizens subscribed to the stock and plans for the erection along until this week, when Mr. Rhodes announced that he would have to withdraw. It is understood that other mill men are thinking of accepting the proposition of the Waco citizens and that a mill may materialize yet, even if the plant has to operate by steam until the Southern Power Company can produce enough current to take on additional customers.

Spartanburg, S. C.—With a view to finding out if cotton mills can be operated profitably at Johnson City, Tenn., a party of 15 of the leading business men of that city, visited Spartanburg recently and inspected

several of the larger textile plants in and about this city. After studying the situation here and at Gastonia, N. C., Adam B. Crouch, president of the Tennessee National Bank, of Johnson City, and L. H. Shumate, president of the Unaka and City National Bank, stated at a banquet tendered the party at the Cleveland Hotel that they believed cotton mills could be operated to advantage in and around Johnson City.

Though they came to study the cotton mill situation, there was not a cotton mill man among the hosts of the occasion to meet and greet them. However, many other lines of business were represented.

Macon, Ga.—At a conference held this week officers of the Bibb Manufacturing Company made plans for the immediate erection of a 16-room school building at Porterdale, Ga., where one of its plants is located.

In addition to this several other extensive improvements were decided upon. These include sidewalks, the building of storm sewers, and general work of beautifying the grounds. The proposed improvements will cost \$100,000.

It was also stated authoritatively that the Bibb Manufacturing Company will build a number of new houses in the No. 2 mill village between Oglethorpe and Hawthorne streets in Macon.

Greenville, S. C.—In addition to the purchase by Allen Graham, president of Camperdown Mill, of a block of property on Choice, Hunt and Lois streets, and Oakland avenue, from J. W. Batson, for school purposes of about a block of property in the same neighborhood for the erection of a number of modern homes for operatives of the mill.

The tract is to be purchased from W. T. Hudson, and is part of the Hudson estate. It is bounded by Lois Webster and Hunt streets, and there are now on the property about 12 houses. While definite details have not been announced, it is understood the mill plans to replace these houses with more modern structures, to be used as homes for operatives of the mill.

Concord, N. C.—The Gibson Manufacturing Company, one of the mills of the Cannon chain, is the latest textile concern in this county to announce improvements and additions to its present plant. The proposed enlargement of the mill was announced by E. C. Barnhardt, Sr., president of the company.

Under the plans worked out some time ago by Mr. Barnhardt and other officials of the company and

approved by the directors of the company at a meeting this week, a new structure to house the finishing plant of the mill will be erected, and the finishing plant will be made one of the most modern in the South.

The building which will house the finishing plant, under the new plans, will be 60 by 200 feet, two stories in height and will be erected just in the rear of the present mill building. In addition to the present finishing plant machinery, which will be moved into the new structure, the company has purchased additional machinery to complete the equipment of the new plant. The additional structure and machinery will mean an increase in the output of the company. Colored goods will be made in the mill and finished in the new plant.

It was pointed out by Mr. Barnhardt that the weaving capacity of the mill is now greater than the finishing capacity, and the new plant has become necessary.

The space in the present mill building which will be left vacant when the present finishing machinery is moved to the new addition will take care of new carding and spinning machinery which the company has already purchased.

Greenville, S. C.—The Minter Homes Company announced the closing of three contracts for an aggregate of 115 houses to be erected in three cotton mill villages at a cost of more than \$150,000.

The contracts include 60 houses for the Fort Mill Manufacturing Co., at Fort Mill, S. C.; 30 houses for the Amazon Mills, at Thomasville, N. C., and 25 houses for the Chadwick-Hoskins Mills at Charlotte, N. C. Work of erecting the houses will be started at once.

Albermarle.—It has just been announced here that J. A. Groves, of this place, who for the past 20 years has been associated with the Wiscassett Mills Company, and for recent years practically manager of that large manufacturing plant, has purchased the controlling interest in the Oakboro Cotton Mill Company, and he, together with a few associates, have become the owners of the entire company, and will begin shortly the work of completion of the building already under construction and toward the installation of machinery.

This company was organized about two years ago with a view to establishing a cotton mill at Oakboro, but for some reason the plant had

never been completed. The original charter will be used and the capital stock will be \$250,000.

It is understood that the mill will start with 6,000 spindles, electrically driven, with thoroughly modern machinery, and fine combed yarns will be manufactured. The Southern Power Company's main tower line passes through Oakboro, from which power will be obtained.

Mr. Groves has resigned his connection with Wiscassett Mills Company, which is one of the Cannon chain of mills, effective April 1, and will proceed at once toward the development of the Oakboro proposition.

Clinton, S. C.—The plant of the Lydia Cotton Mills of this city will be doubled, the contract being let within the next few days, it was announced. Work on the building will begin not later than June 1, according to present plans.

The Lydia Mills, of which M. S. Bailey is president, has 22,500 spindles and 500 looms. The enlargement of the plant will represent an expenditure of approximately \$750,000. The building will be rushed to completion, it was stated, but the machinery will not be purchased at present.

Gaffney, S. C.—A report which seems to be based upon substantial information is being circulated in Gaffney that a \$150,000 yarn mill will at once be established at Kings Creek, in Cherokee county. It is said that a good part of the capital stock has already been subscribed, and the promoters say that the establishment of the enterprise is an assured fact. Another report which will be of much interest to both North and South Carolina is that the Cherokee Falls Manufacturing Company, which is situated on Broad river, in this county, will be consolidated with the Henrietta Mills, in North Carolina, and that both mills will in future be conducted under the same management. It is said that in case this consolidation takes place, that the Cherokee Falls Mill will be enlarged, and a number of improvements will be installed.

Mills Exempt From Taxes.

Columbia, S. C.—Governor McLeod has signed the bill exempting certain new manufacturing plants from county and township taxes for a period of five years in the counties of Anderson, Aiken and Georgetown. The act exempts new cotton, woolen, rubber, pottery and pulp manufacturing establishments that may be built in these three counties.

Manufacturers and Distributors

of
Stauss Rectified Tallow, Oil and Gums for all warp sizing and finishing purposes.

SOUTHERN DISTRIBUTING CO.

50 Market Street, Charleston, S. C.
Griffin, Ga. Greenville, S. C. Charlotte, N. C.

KITAGUMI JAPAN WAX

SOLE U. S. AGENTS

H. R. LATHROP & CO., INC., NEW YORK

SOUTHERN REPRESENTATIVE

GEO. W. RICKENBAKER GREENVILLE, S. C.

HESSLEIN & CO., Inc.

93 WORTH STREET

NEW YORK

Selling Agents

Representing Leading

COTTON MILLS

FABRICS FOR THE JOBBING, EXPORT
AND CUTTING-UP TRADES.

THE CHOICE OF A HUMIDIFYING SYSTEM

must be one that for simplicity with great capacity and economy in maintenance produces uniformly such conditions that may be determined for the different requirements of the work. In the American Moistening Company's method of humidifying, all such requirements are GUARANTEED.

Our COMINS SECTIONAL HUMIDIFIERS

Our FAN TYPE and HIGH DUTY HUMIDIFIERS

Our VENTILATING Type of Humidifier (Taking fresh air into the room from outside)

Our ATOMIZERS or COMPRESSED AIR SYSTEM

Our COMPRESSED AIR CLEANING SYSTEM

Our CONDITIONING ROOM EQUIPMENT

Our AUTOMATIC HUMIDITY CONTROL (Can be applied to systems already installed)

Our AUTOMATIC TEMPERATURE CONTROL

Are all STANDARDS OF MODERN TEXTILE MILL EQUIPMENTS.

AMERICAN MOISTENING COMPANY

RUSSELL GRINNELL, President

BOSTON, MASS.

FRANK B. COMINS, General Manager

SOUTHERN OFFICE, Atlanta Trust Company Building, ATLANTA, GEORGIA

TALLOW—OILS—GUMS—COMPOUNDS

TEXTOL, A new product especially for Print Cloths. A complete warp size, requires no addition of tallow



TRADE MARK

Tallow, Soluble Grease, Soluble Oils, Gums, Glues, Gum Arabol, Lancashire Size, Waxes, Finishing Pastes, Soaps, Glycerine, Ready-made heavy Size, Sago and Tapioca Flours, Dextrines, China Clay, Soluble Blue Bone Grease, Bleachers' Blue.

SPECIAL COMPOUNDS FOR WARPS, WHERE STOP MOTIONS ARE USED.

WEIGHTING COMPOUNDS FOR COLORED AND WHITE WARPS.

FINISHING COMPOUNDS FOR ALL CLASSES OF FABRICS.

The Arabol best grades of cotton warp sizing compounds make the "finest weaving and will hold the fly."

These compounds are based on the best practical experience and the best materials used in their manufacture.

The Arabol Manufacturing Co.

Offices: 110 East 42nd St., New York, N. Y.

P. D. JOHNSON, Ga., Ala., and Tenn. Agent, Atlanta, Ga.

Southern Agent: Cameron MacRae, Concord, N. C.

ALSO HOSIERY FINISHING AND BLEACHINGS



Factories: Brooklyn, N. Y.

P. P. GIBSON, South Carolina Agent, Greenville, S. C.

Urges Conference on Fine Goods.

(Continued from Page 21)

purpose to raise the respect and esteem in which cotton is held, to discover new uses and to spread abroad a higher understanding of the possibilities and the value of the fiber.

"I have discussed this matter for years with mill men in the East. I was myself at one time briefly and unhappily in the cotton business. I

have won their consent to play their part in any plan that may be evolved that gives a promise of success. I believe that this movement could start with a little more certainty of success in the South than in the North or East. I know that any invitation on your part to the other factors in this problem will receive an earnest and immediate consideration. A little while before I advised you that you could not

build your success on envious imitation of what the manufacturers of silk had done and yet this much at least you might with propriety copy. Their exhibition comprised every element in the industry, every element, but one and that was the Japanese and Chinese and Italian farmers who actually grow cocoons. But from the reeling of cocoons to the finished webs of loveliness every element in this great industry was represented in their two biennial exhibitions in Grand Central Palace, New York. It is estimated that this exhibition cost between \$1,250,000 and \$2,000,000. It was crowded from the day it opened to the day it closed and while it has not wanted as no movement of this kind shall ever want for envious detractors, its influence on the silk business has been wholly beneficial. If you will contrast for a moment the size of the cotton industry, I mean the financial size, the immense audience that it has because of the qualities that make its economic costs lower than that of silk, you will realize that you or rather the industry of which you are a part, could well afford to spend a sum several times this size to achieve this result.

"I do not urge you to consider an exhibition as yet. I do not urge you to any specific course of action. The time has not come when this may safely be determined, and even if an exhibition were decided on, there are many things that have first to be decided and many things first to be achieved before it would be wise to put the industry on record before a critical public. If nothing came from such a conference except to lift cotton out of the rut of mediocrity, to have a clear exposition of its splendid basic qualities, it would be worth the effort, and if the opportunity were developed with enthusiasm and vision and unselfishness, the result would not face in New England a periodical crisis in labor nor in the South a vigorous resistance to modern methods of agriculture that in the end must spell economic disaster."

Southern Terminal Co.

The Southern Terminal Company, a much needed industry has been formed at High Point, N. C., for the storage and forwarding of all commodities. Manufacturers availing themselves of this service will forward to this concern solid cars which will be stored in fireproof warehouses and forwarded to the consumer on order. Local and nearby deliveries will be made by truck.

The concern has met a warm welcome by the textile and furniture manufacturers of High Point and vicinity as it will place at their disposal a local stock of dyestuffs, stains, glue, varnish, sand paper, etc. The company has commodious warehouses and private sidings on line of the Southern railroad. This also gives the northern manufacturers the advantages of a southern branch enabling them to meet competition in delivery besides a great saving in freight.

Lancashire Cotton Mills Diversifying Products.

Washington.—Trade Commissioner Hugh D. Butler of London, England, has reported to the textile division that Manchester mills spinning American cotton were running on the average of 33.8 hours per week in the middle of February. Deliveries were 98 per cent of production. It may be readily seen that trade has fallen off since the middle of January, when deliveries exceeded production and also orders exceeded production.

It is interesting to note that the 226 firms worked actually fewer hours on the average, although full time had been prescribed, than when the organized short time of the previous months was in vogue.

Trade Commissioner Butler also reports that Lancashire manufacturers are constantly endeavoring to get their costs closer to pre-war levels. Conferences have been held between representatives of the Federation of Master Cotton Spinners' Association and of the allied Finishing Association.

FOLLOW A LEADER

Twenty-five years of shop practice on CARDS, winding LICKER-INS, and clothing FLATS.

Winding Licker-ins a specialty. My references are my customers. Write for particulars.

J. D. Hollingsworth

Box 69, GREENVILLE, S. C.

THE TRIPOD PAINT COMPANY

—MANUFACTURERS—

ATLANTA GEORGIA

MILL WHITES, PAINTS, STAINS, Etc.

Write for Prices and Free Samples



ACCOUNTS of Southern Textile Mills solicited.

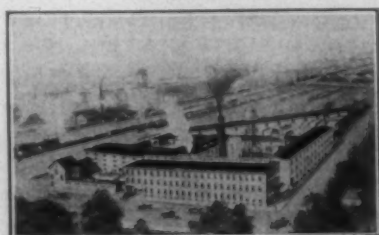
Shippers' Trade Acceptances Especially Invited

Bank of Charleston

NATIONAL BANKING ASSOCIATION

CHARLESTON, S. C.

RESOURCES : OVER : \$10,000,000



DAVID BROWN
President

GEORGE G. BROWN
Treasurer

THE DAVID BROWN COMPANY

Lawrence, Mass.

NOTE our New Factory Additions and Improved Facilities for Manufacturing Our

"HIGH GRADE"

Bobbins, Spools and Shuttles

Correspondence Solicited

Catalog on Request



PAINT PIGMENT

A paint pigment, to do effectively the work for which it is intended, must have certain vital properties, some of which are:

- 1—It must be inert—that is, it shall not undergo any chemical change in use.
- 2—It must aid in preserving the original elasticity of the vehicle.
- 3—It must increase the thickness of the paint film to afford better protection.
- 4—It must have long life to maintain unimpaired the above properties.

All of these conditions are met fully by flake silica-graphite, the pigment used in Dixon's Silica-Graphite Paint. This pigment is mined naturally combined and therein lies the secret, for experience has shown that a mechanical mixture will not perform these vital functions.

Write for our Technical Booklet No. 176-B. It will show how and why silica-graphite is a better pigment.

JOSEPH DIXON CRUCIBLE COMPANY
Jersey City New Jersey
Established 1827

The Seal of Vul-Cot Fibre Service



This is the seal of a service—a service with three-fold facilities for producing Vul-Cot Fibre and Vul-Cot Fibre parts and products. It represents the combined equipment of three great factories for speedy manufacture and delivery of this famous material.

*As hard as horn,
As durable as steel,
As adaptable as rubber—
Less costly than any is
Vul-Cot Fibre*

It comes in sheets, rods, tubes or the finished parts made to your own specifications. Write us, naming your requirements, and we will gladly send samples.

National
Vulcanized Fibre Company
Wilmington, Delaware

Mill Migration Giving Concern.

An article in the Boston Transcript of Wednesday—headed "Spindles Going South—Some See End of Cotton Industry in Lawrence—Beginning With the Pacific Mill Change," etc.—has timely interest for this section, when read in connection with the advice given the Boston Chamber of Commerce Thursday by Dr. Donald B. Armstrong, of New York, against moving to the "malaria and hookworm ridden" South, and the calling of Dr. Armstrong to account forthwith by the health officers of South Carolina and other Southern States, says the Columbia State.

Columbians who discussed the matter said it was absurd for Dr. Armstrong, a resident of New York, to attempt advising New England mill men regarding Southern conditions, considering that several of the great textile houses there, notably the Pacific Mills, have long operated mills of their own in the South and know for themselves precisely what conditions are here.

The article in The Transcript follows:

Lawrence, March 28.—Much importance is attached locally to the announcement made public by officials of the Pacific Mills corporations as follows:

"Pacific Mills has definitely decided to go ahead promptly with the development of its recently acquired property near Spartanburg, S. C. This work has been placed in charge of Lockwood, Greene & Co., engineers, and it is planned to erect a bleachery and finishing plant with a capacity at the start of over 1,250,000 yards weekly of wide and narrow goods. In addition to this a cotton mill with an initial capacity of 32,000 spindles is to be erected to manufacture wide sheetings, which are to be finished and made up in the bleachery.

"The spinning machinery for this mill is to be taken from the Pacific Mill cotton department in Lawrence.

"It is planned to name the new community Lyman, in honor of the late Arthur T. Lyman, president of Pacific mills for many years."

It may or may not be significant at the time when representatives of that this statement was issued just the management and of the workers here are holding conferences at which the wage question is being discussed. Discussion of wages increases in the past has been accompanied by more or less talk about the impossibility of manufacturing cotton goods in the North, in competition with the South, principally because of disparity in wage scales above the Mason and Dixon line and below it. It was predicted freely at those times that some day or other all cotton factories would be compelled to move South.

The Pacific has not announced its policy relative to an increase in wages. However, it is known that several conferences have been held between committees representing the management and the employees. The latest of these conferences was held last Saturday morning and lasted two hours but it adjourned, it is understood, without having arrived at any definite agreement.

(Continued on Page 30)



Three Questions to Ask About Mill White:

- 1—Cost?
- 2—Refractive Power?
- 3—Lasting Qualities?

How much will it cost to brighten the interior of your factory? There are two ways to figure it: Immediate cost, and cost over a period of years.

Using the latter method, Wacholite becomes the cheapest mill white you can buy. For it is the longest-wearing mill white made—proved so. It dries with a tough, hard finish that will not chip, crack or peel. Age cannot turn it yellow. Soap and water keep it new.

Wacholite is the perfect white finish for walls and ceilings of mills, factories and warehouses. It magnifies the power of daylight, and distributes it evenly to the darkest corners. It keeps daylight on the job more hours per day. Comparative tests have proved the greater refractive powers of Wacholite.

Get complete information about this master mill white. Write for booklet No. 11, "Keeping in the Spotlight."

For the Outside

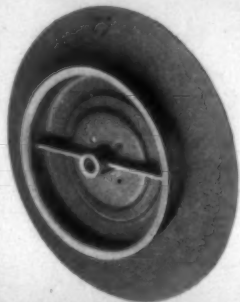
To beautify and waterproof all buildings of brick, cement and stucco, use Bay State Brick and Cement Coating. For inside in dye-rooms and places of excessive dampness, Bay State Brick and Cement Coating is especially adapted. Write for Bay State Cement Coating Booklet.

WADSWORTH, HOWLAND & CO., Inc.
BOSTON



"WACHOLITE"

Mossberg Pressed Steel Corporation



Flat Loom Beam Head
Patented Feb 6, 1923

All Steel

LOOM BEAM HEADS
SECTION BEAM HEADS
ADJUSTABLE BEAM HEADS
(SPLIT AND SOLID)
NARROW FABRIC BEAMS
BEAMS FOR ELASTIC AND
NON ELASTIC WEB
BEAMS FOR SILK RIBBON
"NEW PROCESS" DROP WIRES
JACK SPOOLS

Attleboro, Mass.

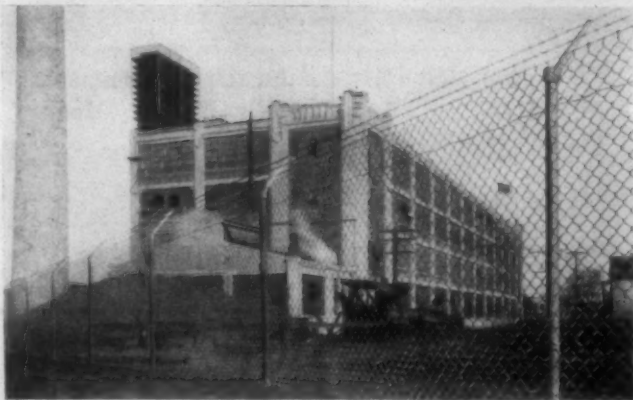
Southern Office: 201 Augusta St., Greenville, S. C.

MANUFACTURED WEATHER
makes
"Every day a good day"
Humidification · Dehumidification
Heating · Ventilation · Purification
Drying
Carrier
Engineering Corporation
750 Frelinghuysen Ave. Newark, N. J.
Boston · Buffalo · Chicago · New York · Philadelphia

FIRM — BECAUSE THEY ARE ANCHORED

Anchor Post Fences

PERMANENT — BECAUSE THEY ARE GALVANIZED



High Protective Chain Link Fence with barbed wire topping.

Drive-Anchored Posts Prevent Sagging

Repeating frosts and thaws of many winters do not loosen them. They stand straight and firm for years—in swamp or dry ground.

Before deciding upon that fence of yours it will pay you to fully investigate this advantageous feature, and, as well, other features—such as old-fashioned hot-dip-galvanizing throughout—all of which contribute to the long life of Anchor Post Fences.

Phone, write, or wire our nearest representative for complete information.

Anchor Post Iron Works: 52 Church St., New York, N. Y.

Charlotte, N. C.: R. M. Lane, P. O.
Box 1375
Greenville, S. C.: H. H. Orr, 315 Pal-
metto Bldg.
Savannah, Ga.: C. M. MacLean Co., 20
East Bay St.

Atlanta, Ga.: Beaulieu & Applewhite,
Citizens Southern National Bank
Bldg.
Birmingham, Ala.: C. S. Caldwell, 2011
3rd Ave.
Sales Agents in Other Cities.

MILL ITEMS

Forest City, N. C.—The Alexander Manufacturing Company is growing rapidly. A new office building has just been completed. It is of nice brick, one story with six rooms and has steam heat and electric lights.

Excavation for a new weave shop, or shed is going forward rapidly. It will be erected as soon as possible. The new shed will be 297 feet long, 159 feet wide, part of it two stories high. It will be of day-light construction and will weave wide shetes. Two hundred looms will be installed as soon as the building is completed and 200 more will be added later. It will have an overhead runway to connect it with the main part of the mill.

Three thousand spindles were recently installed in a new part of the mill. Alexander has a good school, excellent churches and a population far above the average mill town. The homes are modern in every respect.

The village is growing very rapidly. The plans of the founder, Mr. J. F. Alexander for an ideal mill town are being carried out.

Burlington, N. C.—The Elmira Cotton Mills Company has begun the erection of a large addition to their plant in West Burlington. The new building will be 115 by 168.

The cotton manufacturing concern will install 200 additional looms to their present equipment, the new machinery to be operated in the new building. Carding and spinning machinery will also be installed in the proposed new building. The program of improvements for the mill also provides for the erection of an addition to the dye plant and additional machinery is to be installed also. The additional buildings and machinery for the mill will increase the general output of the company, necessitating the addition of more employees.

The addition of employees will nec-

essitate the erection of more tenement houses, and it is understood that a contract has been let to a local contractor for the erection of 25 new dwellings. All of the improvements will be made as soon as the material can be secured and the construction work executed.

North Carolina Mill Men to Meet.

The annual meeting of the Cotton Manufacturers' Association of North Carolina will be held in Winston-Salem, N. C., on June 15 and 16, according to announcement from Hunter Marshall, Jr., secretary. Headquarters for the convention, which will be the seventh annual meeting of the association, will be at the Robert E. Lee Hotel.

An attractive program is being prepared, Mr. Marshall says, and in addition special preparations are being made by the golf clubs in Winston-Salem for the entertainment of the convention.

Answer to Competition.

Editor:

In replying to Competition regarding the trouble he is having with his breaking strength in No. 20 and No. 23 carded warp yarns I think he is doing very good to get the break he is with barely inch cotton.

His settings are not bad although he might improve them some by having smaller rolls and closer roll settings for inch cotton.

We are not spinning any carded yarns but as a comparison I broke No. 24 combed hosiery yarns from 1 1-16 cotton and got a break of 80 to 84 pounds. On No. 20 combed from the same stock I obtained a break of 98 to 100 pounds. A little more twist would increase the break of my spinning but not a great deal and nothing is gained by going too far with extra twist. The only solution that I see after reading his letter is a little better staple.

Bristol.

Manufacturers Should Look Up the Advantages of Metallic Drawing Roll

Over the leather system before placing orders for new machinery, or if contemplating an increase in production, have them applied to their old machinery. It is applied successfully to the following carding room machinery:

Railways
Sliver Lap Machines
Ribbon Lap Machines
Comber Draw Boxes

Detaching Roll for Corbers
Drawing Frames
Slubbers
Intermediate Frames

25 TO 33 PER CENT. MORE PRODUCTION
GUARANTEED

For Prices and Circular Write to

The Metallic Drawing Roll Co.
INDIAN ORCHARD, MASS.

Principal Indian Cotton Goods Imports Are English.

Washington. — The piece-goods market in Calcutta, India, shows improvement, says a cable dispatch received by the Department of Commerce from Vice Consul Harold Schantz. Imports piece-goods in February comprised 72,553,000 yards of grad cloth, 34,904,000 yards of bleached and 288,659,000 yards of colored cloth. The United Kingdom furnished 91 per cent of the gray cloth 99 per cent of the bleached, and 92 per cent of the colored cloth imported.

Japan's share was 8 per cent of the gray cloth and 3 per cent of the colored cloth, the Netherlands supplied 2 per cent of the colored cloth. In January, the United Kingdom sent 83 per cent of the gray and colored cloth and 99 per cent of the white; Japan contributed 19 per cent of the gray and 5 per cent of the colored and the Netherlands supplied 5 per cent of the colored.

From September 1, 1922, to March 15, 1923, receipts of raw cotton at Bombay totaled 2,349,000 bales. Stocks on hand on March 15 were 864,000 bales, and the mill consumption since September was estimated at 546,000 bales. Exports of raw cotton amounted to 90,770 bales. The price of raw cotton advanced from 539 rupees to 554 rupees per bale of 784 pounds. The jute market is quiet, but jute fabrics are weaker. February exports of raw jute were 36,183 tons. Jute sowings are reported as being 25 per cent in excess of last year with crop conditions favorable.

Saco-Lowell to Expand Plant.

Lowell, Mass.—The Saco-Lowell Shops is prepared to spend \$1,000,000 in expansion in this city, it was stated by Agent E. B. Feaster.

The plan embraces the immediate erection of a magnificent building of

brick and concrete 400 feet in length and 80 feet in width, of three stories Broadway along Dutton street providing two and one-half acres of floor space, and the erection of a drop forge building, 40 by 80 feet, on the back side of the tract and in addition the construction of a steel covered bridge over Dutton street, connecting at the third story the present No. 2 mill in the main yard and the new building.

The expansion plans do not stop with the immediate erection of the buildings mentioned, however, for the 400 foot structure along Dutton street will be so built as to allow continuance for an additional 100 feet, which would carry it to what is now Kitson street. Engineers have estimated that the first building could be ready for occupancy eight months after work was started, but local officers of the company feel this statement a little too optimistic, and are inclined to set the time of erection at one year.

Jencks Plans New Southern Mills.

Boston. — The Jencks Spinning Company, Pawtucket, R. I., completed negotiations for a five year contract for mill construction in the South with the Aberthaw Construction Company of Atlanta and Boston, it was announced here. The Jencks Company is making a survey of general conditions in various parts of the South. The Aberthaw Company has completed two additions for the Jencks Company at Gastonia, N. C., and is now working on a third addition. The company is planning further large development, it was said.

Du Pont Pays Bonus in Stock.

Wilmington, Del.—The du Pont Company has just distributed to its employees 14,484 shares of its own stock, of a par value of \$1,448,400 and \$130,000 in other securities as

the matured portion of bonus awards made during the years 1918 to 1921 inclusive.

This distinction is in line with an amendment recently made to the company's bonus plan, which shortens the period between the bonus award and the delivery of the stock certificates. The bonuses awarded for 1922 amounted to 2,300 shares, of a par value of \$230,000. They were distributed among 300 employees.

Bonus stock valued at \$20,765,-

999.50 has been awarded employees by the E. I. du Pont de Nemours & Company and its predecessor since the inauguration of its bonus plan in 1904. This is an average of more than a million a year. The distinction begun by the old du Pont Powder Company and has been continued by the present company the stockholders of which, at their annual meeting; adopted the changes in the plan which will work to the further advantage of the employees.

Mill Accounts Wanted

Experienced salesman with large experienced sales organization and large mill acquaintance desires additional accounts—specialties preferred. Now successfully selling specialties but can handle additional lines. Address Specialty Salesman.

additional lines. Address, "Specialty Salesman," care Southern Textile Bulletin.

HYDROSULPHITES

Bisulphite of Soda-Powder

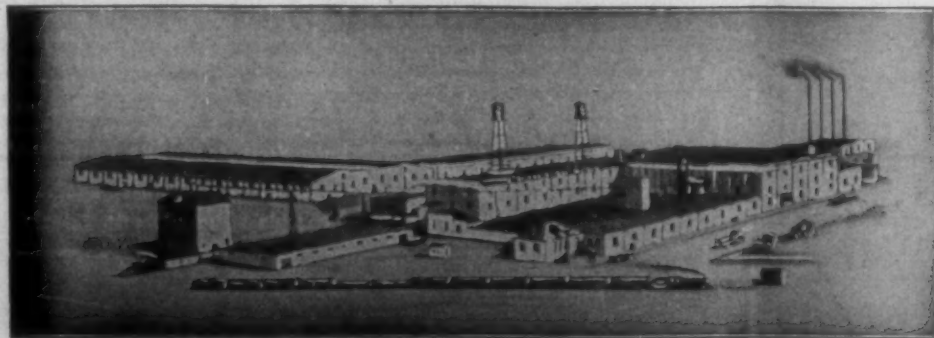
Send Us a Trial Order

Sample Card and Lowest Quotations on Request

H.A. METZ & CO. Inc.

One Twenty-Two Hudson Street, New York City.
 Boston Philadelphia Providence Chicago
 Charlotte San Francisco

VICTOR MILL STARCH — The Weaver's Friend



It boils thin, penetrates the warps and carries the weight into cloth. It means good running work, satisfied help and one hundred per cent production.

We are in a position now to offer prompt shipments.

THE KEEVER STARCH COMPANY

COLUMBUS, OHIO

Southern Representatives:

James H. Maxwell, Greenville, S. C.

Claud B. Iler, Greenville, S. C.

D. H. Wallace, Greenville, S. C.

AMALIE PRODUCTS

An Achievement in Warp Dressing

In Setting New Standards for productive weaving
with materially decreased seconds—

AMALOL and GLUANTINE

are constantly demonstrating their sheer superior-
ity.

Leading Cotton Mills—producing diversity of white
and colored cotton fabrics—characterize

AMALOL and GLUANTINE

“The Most Highly Developed Warp Dressing”

L. Sonneborn Sons, Inc.

Manufacturing Chemists for the Textile Industry
114 Fifth Avenue New York

Sales Offices and Warehouses in Principal Cities

L. SONNEBORN SONS, INC., NEW YORK, N. Y.

TOLHURST EXTRACTORS

REG. U. S.
PAT. OFFICE

SUBSTANTIAL CONSTRUCTION

Every vital part built to exceed, in
performance, maximum operating de-
mands—results in that extraordinary
long life of Tolhurst Extractors, with
which the Textile Industry is thor-
oughly familiar. Special alloys and
raw materials made to Tolhurst speci-
fications are necessary to meet Tol-
hurst standards of strength.

TOLHURST MACHINE WORKS, TROY, N. Y.

Established 1852

Mill Magration Giving Concern.

(Continued from Page 27)

Another conference will be held this
afternoon and, while both parties
to these conferences are decidedly
reticent, it is generally expected that
ultimately an agreement will be
reached which will satisfy the man-
agement and the workers, probably
the latter more than the former.

It should be pointed out that the
Pacific has a great problem to solve
than has any other local textile mill,
for the Pacific corporation operates
both a cotton and a worsted depart-
ment. The worsted business recent-
ly has shown a trend toward pros-
perity but the tendency in the cot-
ton business has been downward.
A disparity in the wage scales of the
two industries always exists, with
those workers employed in the wor-
sted department enjoying the high-
est scale. While the Pacific man-
agement may feel well disposed to-
ward the granting of an increase to
the worsted workers, it may doubt
the advisability of boosting the
wages of cotton workers at this
time.

The action of the Fall River man-
ufacturers in refusing the demand
of the workers for a 15 per cent in-
crease and asking a postponement
of action by the workers until April
29 apparently does not augur well
for the cotton workers here. How-
ever, Acting Agent Irving South-
worth of the Pacific showed dur-
ing the strike of last year and since
that his principal aim is to pre-
serve industrial peace here. He un-
doubtedly has the confidence of the
workers and it is generally felt that
he will untangle the present diffi-
culties.

Some time ago the Pacific Mills
acquired a tract of land of approx-
imately 700 acres near Spartanburg,
S. C. Suggestions were made at the
time that officials had plans in mind
for the transfer of the manufacture
of cotton cloth to the South, so far
as the Pacific was concerned. Oc-
casionally other concerns consum-
ing raw cotton made similar refer-
ences to their business, particularly
officials of the Lawrence Duck com-
pany.

At present the Pacific has a total
spindleage in its cotton department
here of 184,000. The removal of 32,-
000 will mean a decrease of produc-
tion by one-sixth, but that does not
mean necessarily that local business
of the Pacific will go off to that ex-
tent. For although the transfer of
these spindles means the moving
away of all machinery necessary for
the spinning and all preliminary
processes, yet none of the looms
rendered idle in the cotton depart-
ment as a result of the decrease in
spindleage will be removed. Most
of them will be transferred to the
worsted department and the other
will remain in stock.

So that, though the plan of mov-
ing to the South may mean the
transfer of the corporation's local
cotton industry except the print
works and bleachery, it will not
mean necessarily any decrease in the
general activities here of the Pa-
cific; for it is anticipated that with
each decrease in the cotton depart-
ment—if any more decreases come—
there will be a corresponding in-
crease in the worsted department.
Only recently 100 looms in the cot-

ton department which were idle
were transferred to the worsted de-
partment where they were badly
needed.

Most of the 32,000 spindle which
will be moved South when the new
mill is completed were installed
during the war period and are lo-
cated in buildings of the old Atlan-
tic mills property which was ac-
quired some years ago at auction by
the Pacific. They have been includ-
ed in recent statistics of the plant,
however, since they have been run-
ning since installation until a short
time ago, when, because of the lull
in the cotton industry about 10,000
became idle. Although nothing defi-
nite can be said as to when the ma-
chinery will be removed, officials
are of the opinion that it will be
before the end of the present year.

Likewise pertinent in this conec-
tion is another article in The Tran-
script, headed, "Massachusetts Still
Leads—Has More Than Twice the
Cotton Spindles of North Carolina
—Not Maintaining This Advantage,
However, in Production." The arti-
cle follows:

"Pertinent to a recent dispatch
from Raleigh to the effect that
North Carolina has more cotton
mills than Massachusetts, some
government figures just promulgat-
ed are interesting. The dispatch,
which was based upon a report of
M. L. Shipman, state commissioner
of labor for North Carolina, stated
that the latest figures show 383 cot-
ton mills in North Carolina. The
United States department of com-
merce has just published figures for
1921 which show 344 mills for North
Carolina and 182 for Massachusetts,
which is the latest direct compari-
son available. On the other hand
the same department shows that on
February 28 of this year North Car-
olina had 5,338,001 spindles active,
whereas Massachusetts had 10,812,-
132.

WELL DRILLING AND DEEP WELL PUMPS

We do the engineering, and have
had 32 years experience solving water
problems satisfactorily for textile
mills.

Sydnor Pump & Well Co., Inc.
Richmond, Va.

NORFOLK SOUTHERN R. R. Announces

Reduced Fares to Durham, N. C.

Account

Woman's Missionary Union, Auxiliary
to Baptist States Convention of North
Carolina, March 27th-29th. Tickets
for the going journey sold March 23-29,
inclusive, certificates validated March
29th, honored until April 2, 1923.

J. F. DALTON,
General Passenger Agent,
Norfolk, Va.

Save in freight by using

W I L T S

Veneer Packing Cases

They are lighter and stronger,
made of perfect 3-ply Veneer Pack-
ing Case Shooks. A saving of 20
to 80 pounds in freight on every
shipment because of extreme light-
ness. Stronger than inch boards,
burglarproof, waterproof and clean.
Write for prices and samples.
Convincing prices—Swift service.

Wilts Veneer Co., Richmond, Va.

Dyeing of Cotton Piece Goods.

(Continued From Page 14.)

needed. These cans, or cylinders, are made of either tin or copper, are filled with steam, and revolve with the cloth. The cans, as a rule, are set up in stacks. Thirty of these cylinders with a steam pressure of 10 pounds will dry the average kind of cloth at a speed of 60 yards per minute. The principle of the padding machine placed in front of these cans is the same as the other faster pad. In both cases the cloth is impregnated with the dye solution in the same manner. When dyeing very heavy cloth more even results are obtained by dipping the cloth underneath the liquor, in addition to its contact with the liquor on the roll.

Cotton cloth has a natural affinity for direct dyes; that is, it absorbs the dyestuff which is carried through on the cloth, as well as some of the dyestuff which is in the solution squeezed back by the padding rolls. This latter, of course, gradually weakens the dye liquor and the cloth does not keep the same depth of shade that it started with. This difficulty is taken care of by starting the operation with a weakened dye solution; by adding the proper amount of water in the trough underneath the squeeze rolls. By careful practice this unevenness can be reduced to a minimum.

The dark shades are generally dyed on the jig. The jig is composed of a wooden trough with sloping sides, having a capacity of about 100 gallons. There are four rolls set in this, two in the corners near the bottom and the other two at the top near the sides. There is an outlet pipe in the bottom and a perforated steam piper the whole length, so that the live steam is blown directly into the dye solution. Above this trough are two rubber beams which are geared to a shaft, with a clutch on the shaft in between the beams, so that when one of the beams is thrown into gear it revolves outwardly and when the shifting lever is thrown over the other way this beam stops and the other beam turns and the other beam turns outwardly. A brake is provided on the end of each beam to keep the cloth at a uniform tension as it passes from one beam down through the liquor and up on to the other beam.

Cotton piece goods dyed on the jig are wound on from a roll of a convenient size to handle, not usually more than 800 yards, depending upon the weight and bulk of the cloth. The method of putting the cloth on the jig preparatory to dyeing is first to place a roll of cloth in the upright arms of the ends of a beam, taking the end of the cloth and threading it under the four rolls in the dye trough and wrapping it around the beam on the other side. It is then run onto this beam by throwing in the clutch, which turns the beam until the cloth is all wound on with the exception of the last end this being left wrapped around its beam. The cloth is now ready to run back and forth at will.

In most dyehouses one man runs two jigs. However, this depends upon the make of the clutches. If a clutch grips and releases itself freely from the connecting shaft it is possible for one man to run six jigs

easily; but where a cone clutch is used, and the only way to separate them is by giving them a blow with a piece of shafting or some other kind of a hammer, he can only take care of two.

It is important, after the dyeing operation has been started, to stop the roll so that the end does not go all the way through and unthread the machine. If this happens the end must be pulled back through the hot liquor by means of a large hook.

The rolls of cloth are either wet out or dry when they come to the jigs; in either case they are run through cold water before dyeing, so as to make them uniformly wet and absorbent throughout.

There are two common types of dyestuffs in use for jig dyeing. They are the direct colors and basic colors. The cotton has a natural affinity for the direct dyes, but not so for the basic dyes. In the use of the latter a chemical or indirect method has to be resorted to in order to attract and hold the dye on the fibre. This process is known as mordanting the cloth.

In the mordanting process the cloth is first saturated with tannic acid either on the padding machine or on the jigs. The padding machine gives the best results, but it is necessary to run the cloth perfectly straight and to batch or roll it up as fast as it passes through the liquor, otherwise if the edges are exposed the tannic acid is chilled and is very likely to dry out and cause the cloth to have discolored edges or selvages when dyed. The strength of tannic acid for dyeing Purples, Royal Blues, Emerald Greens and American Beauties is from 1 1-2 to 2 ounces per gallons at about 150 deg. Fahr. After running the proper size rolls through this solution they are placed on the jigs and run through a cold solution of antimony salt or tartar emetic. This combination precipitates the insoluble antimony tannate evenly through the cotton fibre. The compound has a great affinity for the basic dyestuffs, which are applied in a cold acetic acid bath.

The jig trough is partly filled with the requisite amount of water and one-half of the previously dissolved dye is put into this water and stirred up with a stick until the solution is uniform. The cloth is then set in motion and is run through to the end; then the other half of the dye is added, stirred and the cloth is run to insure an even shade from end to end, and in the middle of the batch a patch 6 inches long and 3 inches wide is taken out at a seam, which are usually in multiples of 60 yards apart. This is dried and the dyer compares it with the sample to be matched. It is not unusual that the correct shade is obtained at this point, so that the cloth is rolled up on a separate roll which rests upon the beam. It is then mangled and dried.

To obtain shades of Slate, Brown, Khaki, Red, Green, Yellow, Navy Blue and Cadet Blue, in all their various depths and tones, the direct dyes are used. The cloth is run back and fourth through a boiling hot solution of one, or a mixture of these dyes, for three ends, at which time the cloth has not had long enough contact with the dye liquor to be colored the full shade, so that

(Continued on Page 34.)

ENDLESS CARD BANDS

No Slip
No Splice
No Stretch
No Hooks



Combs equipped with Tilton Bands are operating for months without adjustment.

ARTHUR S. BROWN MFG. CO., Tilton, New Hampshire

Sou. Rep. O. L. JOHNSON, Box 1014, Charlotte, N. C.

B V C

TRADE MARK

WARP TYING MACHINES HAND KNOTTERS
WARP DRAWING MACHINES
AUTOMATIC SPOOLERS HIGH SPEED WARPERS
BARBER-COLMAN COMPANY

BOSTON, MASS. GREENVILLE, S. C.
MAIN OFFICE AND FACTORY:
ROCKFORD, ILL. U. S. A.

Fire Without Having A Cleaning Period On



For Use with Either Natural, Induced or Forced Draft
FOR DETAILED INFORMATION WRITE

THOMAS GRATE BAR COMPANY
BIRMINGHAM, ALA.

SEABOARD Air Line Railway

ANNOUNCES

Winter Excursion Rates

To
FLORIDA POINTS
and
HAVANA CUBA

Tickets on sale October 1st, 1922, to April 30th, 1923, with final limit to June 15th, 1923.

Important Winter schedules effective November 12th, 1922, with through sleeping car lines to Florida's East and West Coast Resorts.

For further information, Pullman reservations, etc., call on nearest Ticket Agent or address

E. W. LONG,
Division Passenger Agent,
Charlotte, N. C.

Gum Tragasol Agglutinates

the fibres of the yarn—cotton, woolen or worsted which—ever it may be—and prevents waste of good materials by eliminating flyings.

Gum Tragasol is Cheaper
than either wool or cotton, therefore, its use is a distinct economy.

JOHN P. MARSTON COMPANY
247 Atlantic Avenue, Boston

AUDITS

TAX SERVICE

Geo. H. Adams & Co.

Certified Public Accountants

11 W. Fourth St. CHARLOTTE, N. C. Phone 5117

WENTWORTH Double Duty Travelers

Last Longer, Make Stronger Yarn, Run Clear, Preserve the SPINNING RING. The greatest improvement entering the Spinning room since the advent of the HIGH SPEED SPINDLE.

Manufactured only by the



National Ring Traveler Co.

Providence, R. I. 31 W. 1st St, Charlotte, N.C.



The Standard of Excellence
Electrical Installations
IN TEXTILE MILLS AND
VILLAGES

HUNTINGTON & GUERRY, Inc.
GREENVILLE, S. C.

DISINFECTANT

We guarantee our disinfectant to meet any government specifications. We manufacture them ourselves, and do not fill them with rosin or other cheap fillers. Get our prices. They will surprise you.

MASURY-YOUNG CO.

Established 1857

BOSTON, MASS.

Emmons Loom Harness Company

The Largest Manufacturers of Loom Harness and Reeds in America

Loom Harness and Reeds

Slasher and Striking Combs Warps and Leice Reeds,
Beamer and Dresser Hecks, Mending Eyes, Jacquard
Heddles

LAWRENCE, MASS.

DIXON LUBRICATING SADDLE CO.

BRISTOL, RHODE ISLAND



Use Dixon Patent Stirrup Adjusting Saddles, the latest invention in Saddles for Top Rolls of Spinning Machines. Manufacturers of all kinds of Saddles, Stirrups and Levers.

WRITE FOR SAMPLE

Cleaning of Cotton.

(Continued from Page 12.)

of the combing action of very strong spiked lifting and evener lattices. It was introduced during the war in order to supply the extra opening required for the hard pressed American bales, and it has proved to be the correct machine for Egyptian and Indian cottons also.

The principal opening parts of the machine are similar to the hopper bale breaker, with the exception of a strong spiked evener lattice taking the place of the spiked evener cylinder. The spikes of the lifting lattice are each riveted into a metal casing and are arranged at an angle of 24 deg. to the lattice. These strong spikes comb and open the cotton by the rotation of the lattice, and any large pieces that may be lifted are immediately combed back into the box by the spikes of the evener lattice, which rotates in an opposite direction to that of the lifting lattice and over the top of it.

The leather bladed beater, as in the hopper bale breaker, strips the cotton from the spiked lifting lattice and drives out a fair amount of heavy impurities between the grid bars underneath, the light dust being drawn away by a fan fixed on the top of the machine. The recent addition of the patent hopper opener has resulted in better opened cotton, which at this stage is necessary to allow of an even delivery from the following machines, and it has also greatly improved the cleaning power of the whole combination.

From the hopper opener the cotton is delivered to the hopper feeder. The outstanding features of the machine are its gentle treatment of the cotton, and the increased regularity of the lap sheet obtained by its use. Since the introduction of the patent hopper opener the hopper feeder has become more than ever what it was originally intended for, and that it to give a regular delivery of cotton to the next machine, no matter whether it be the Buckley opener, the breaker scutcher or the lattice feeder of our well known and popular system, the exhaust opener. The cotton delivered from the hopper feeder is now so regular and well opened that it allows of increased cleaning and improved regularity by the lattice feeding machine, which is the first really important cleaning machine in the combination.

Blowing Machinery.

Patent Lattice Feeder.—The lattice feeder has undergone a great change during the last few months, its cleaning surface of grid bars has been greatly increased, the number now in use in the patent arrangement being 76, as against 25 in the old pattern. To obtain this great cleaning surface the delivery funnel has been arranged over the feed lattice, and from the funnel the cotton may pass either to the Crighton cylinder part, the dust trunk, or direct to the exhaust opener lap machine. The increase in the amount of droppings from the machine is from 10 to 150 per cent. more than from the old type. It is arranged so that air may enter between the spaces of a few of the top grid bars, leaving more than half the circumference of the cylinder

for cleaning bars. The arrangement is entirely new, and patents have been applied for in several countries, thus showing you that as machine makers, Platt Bros. & Co., Ltd., intend to keep up their high reputation.

Crighton Opener.—From the patent lattice feeder the cotton passes through the Crighton opener cylinder part, an old type of cleaning machine, but which is still recognized as one of the greatest factors in the cleaning of most varieties of cotton.

It is most remarkable that this machine, which for many years was considered suitable only for opening short cottons, is now being extensively used for long staple cottons. This has been brought about by arranging the strikers on the plates on the screw principle, and by fixing the plates closer together, thus making a finer pitch screw. For short cottons the cylinder consists of 6 plates with an aggregate of 34 strikers, and for long cottons 8 plates and 33 strikers. It should be carefully observed that the 8 plates the 6 plates, but that the length of the cylinder is the same in each case. The cylinder is built up conical grind. At the bottom of the cylinder shaft is a screw and lever motion by which the cylinder is raised or lowered, thus allowing the strikers to be set further away from the grid bars for long cotton, or closed for short cotton. The pitch of the cleaning bars varies according to class of cotton to be worked through the machine, as, for instance, 148 bars may be used for long staple cottons, 168 for medium, and 188 for short cottons. This variation is to allow for maximum cleaning with minimum loss of good fibres.

Further, in the combination of machines, referred to, the cotton has been partially opened by the cylinder of the lattice feeding machine before passing to the Crighton cylinder, and is fed to the latter in a regular fleece, both of which are very important factors in the successful treatment of long cotton through the Crighton opener.

The speed of the cylinder when working in the patent combination is about 500 r.p.m. on American cotton and about 700 r.p.m. on Egyptian cotton. The latter speed may be considered excessive for the successful treatment of Egyptian cotton, but experience has shown that when the specially constructed cylinder is working at this speed in combination with the exhaust opener lap machine, the long staple cotton is opened and cleaned without stringing the fibres. A ball-bearing arrangement consisting of a plain thrust washer has been applied to the Crighton cylinder footstep and is now our standard bearing for this machine. It can be applied to all existing machines at about the same cost as the ordinary repairs to tail pins and washer. Many of these ball-bearing footsteps are in use in this district and are giving every satisfaction.

Dust Trunks.—Since the introduction of so much cleaning power previous to the dust trunk, the grid type is proving far superior to the traveling lattice type, as owing to the many small compartments in

which the dirt box is divided as receptacles for the droppings, much small leaf is found there which would have been carried forward under the old type of traveling lattice trunk.

Exhaust Opener.—The excellent results obtained from our exhaust opener combination are based on the principle of a little opening from each machine comprising it with a full opening of the cotton from the last cylinder on beater, and as much cleaning as possible without loss of good fibres. If the best results in cleaning are to be obtained, care must be taken not to run the exhaust cylinder at a greater speed than is required to draw the cotton regularly from the lattice feeder through the Crighton cylinder part and across the dust trunk.

When working a good quality of Egyptian cotton through such a combination of machines it is the best policy to dispense entirely with the bladed beater, and to substitute it by a cylinder with strikers.

Production through a machine, of course, is a very important consideration in the quality of work to be turned out, and we advise for this machine about 600 lbs. per hour American cotton, and for Egyptian about 400 lbs. per hour. To obtain the full cleaning power from any opening machine it is essential to see that the strikers of the cylinders and the blades of the beaters are kept in good working condition, also the grid bars particularly of the Crighton opener. The grid bars of the latter machine are sometimes through hard substances in the cotton being dashed against them that in many cases they are crooked and badly worn on the edges and it is only by periodical examination that such defects may be put right and full advantage taken of the cleaning power of the machine. A specified time for the examination of the various cleaning parts of mixing, blowing and carding machinery and reporting defects at once to the management are the best means to obtain and keep the highest working qualities of these machines.

A further matter for consideration in connection with the cleaning power of mixing and blowing machinery is the arrangement of settling chamber and dust chimney. If fine leaf is to be got away through the dust cakes the air should be delivered by the fan as it is drawn, and as this can only be accomplished by having the settling chamber and dust chimney of such a size as will prevent undue pressure against the delivery of the fans it is essential to know what are the best working conditions. From experience we find the best arrangement to be as follows:—The settling chamber immediately underneath the blowing room, the height of it 10 feet, with an area of 1,000 cubic feet for each fan and an outlet of 10 square feet for each, with the chimney extended about 10 feet above the main building.

I am still firmly convinced that we are not making the full use of the dust cages as a cleaning power and should be greatly interested to go thoroughly into this matter.

Scutcher.—This machine is generally recognized as one on which the laps from the opener are doubled

to improve the regularity of the lap sheet before carding. Particular attention should, however, be given to obtain as much cleaning as possible from it without damaging the fibres. To obtain the best results in cleaning, the laps fed from the opener should not be more than 18 ozs. per yard American cotton, and 16 ozs. per yard Egyptian cotton. The production of a scutcher, making 45-in. laps, should be about 250 lbs. per hour American cotton and about 200 pounds per hour Egyptian cotton. For the production given the speed of the three-bladed beater should be 850 r.p.m. and the striker cylinder about 1,000 r.p.m. To obtain the full advantage of the cleaning bars under the beater the top grid bar should be set with its striking edge the same distance from the beater blade as is the feed roller and the spaces between the bars should be such as to allow the larger impurities being driven out without the loss of good fibres.

Some firms have adopted the double scutcher with satisfaction but they have cylinders in lieu of beaters, thus giving the advantage of opening the cotton by a combing action, and of additional cleaning bars and dust cages. If the full benefit of the cleaning power of blowing machinery is to be maintained throughout the carding and spinning processes great care should be taken not to string the cotton, as any cleaning process which at the same time gives this undesirable result is not conducive to a clean yarn.

New Brunswick Chemical Co.

The New Brunswick Chemical Co. of Newark N. J., is manufacturing a line of special finishes and sizing assistants of particular interest to textile mills. These are the result of a close study not only of the needs of the market but of those commodities which are already available and as a result of the research so conducted the line of products made by the New Brunswick Chemical Co. is believed to be of especial value to those interested in securing high class finishes.

In order to bring these commodities to the attention of the textile mills the company has decided to inaugurate an extensive publicity effort which is now being released by the Hazard Advertising Corporation to the trade papers.

The successive advertisements of The New Brunswick Chemical Company will, therefore, be of particular interest to the practical mill man who is desirous of keeping well abreast of new developments in this line.

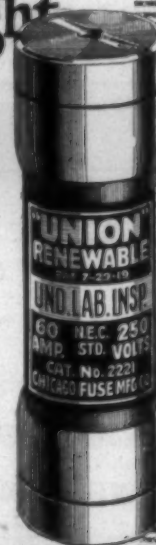
Bombay Piece Goods Market.

The Bombay piece-goods market is maintaining a firm tone although buying is being checked by advancing prices. A better feeling has been noticeable in local mill grey goods and negotiations with well-known mill agents will probably result in business at 1.5 rupees per pound. Japanese cloths are also in better demand, and current values have remained firm, says Consul T. M. Wilson, Bombay in a report to the Department of Commerce.

Buy the Fuses that 108,000 Concerns Have Found Right

A canvass among distributors, jobbers and dealers shows that more than 108,000 industrial plants have tried "Union" Fuses and continue to purchase them when more are needed.

Isn't that solid, convincing proof that "Union" Fuses are easier to renew, longer lived and cheaper than other makes? When "Union" fuses have proved their superiority to such a vast number of shrewd buyers, isn't it a pretty safe guide for you to follow?



UNION

RENEWABLE FUSES

Save More Than Any Other Make

Here are the two principal reasons for this. First, simplicity of construction makes renewal easy and does away with the temptation to throw away a blown fuse and use a new one rather than put a new link in the blown fuse. Second, it is a provable fact that "Union" Fuses will stand more blowouts than any other make.

Leading electrical jobbers and dealers everywhere sell the "Union," Underwriters' approved, Renewable and Non-Renewable Fuses.

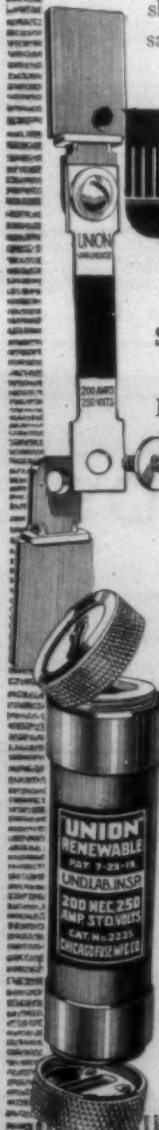
Write us for our new 96-page catalog.

Chicago Fuse Mfg. Co.

Manufacturers of Switch and Outlet Boxes, Cut-Out Boxes, Fuse Plugs, Automobile Fuses, Renewable and Non-Renewable Enclosed Fuses.

CHICAGO NEW YORK

REG. U.S. PAT. OFF.





JNO. L. ROBINSON & CO. COTTON

Home Office—Memphis, Tenn.
COTTON BRANDED "BIG BOY"

ROBINSON & BAGGETT, Agents
Charlotte, N. C.

C. I. JONES

H. N. FAIRLEY

C. I. JONES & COMPANY COTTON

Salisbury, N. C.

We Try to Represent the Best Shippers in the Cotton Belt

COOPER & GRIFFIN

(Incorporated)

COTTON

GREENVILLE, S. C.

Branch Offices in the Carolinas and Georgia

Williams, Smithwick & Co.
Memphis, Tenn.

Ridgely D. Park
Charlotte, N. C.

WILLIAMS, SMITHWICK & PARK CO.

COTTON

MISSISSIPPI STAPLES

ARKANSAS BENDERS

143 Brevard Court, CHARLOTTE, N. C.

Long Distance Phone 9940

Postal Phone

Local Phone 5436

S. B. WILSON & COMPANY

COTTON

STAPLES AND BENDERS A SPECIALTY
MEMPHIS, TENN. CLARKSDALE, MISS.

Arthur H. Fuller, Agent, Gastonia, N. C.

CHARLOTTE DOUBLE LOOP (HOOK) CARD BANDS

BEST BY TEST

Also Spinning, Spooling and Twisting Bands
When ordering card bands state make of card and size of doffer. With this information we guarantee correct fit, both diameter and length, of any band for any make of card.

SOUTHERN TEXTILE BANDING MILL
Box 44 Charlotte, N. C.



GOOD SPINNING — SMALL WASTE

BELL BROTHERS & COMPANY

Successors to BELL-SHAW CO.
Dallas, Texas

COTTON SHIPPERS AND EXPORTERS

Branches—Houston, Brownwood, Sweetwater, Corsicana, Stamford, Texas
and Oklahoma City and Hobart, Okla.

Dyeing Cotton Piece Goods. (Continued from Page 31.)

an addition of salt in each of two more ends is made. This tends to throw the dyes out of the solution onto the cloth. If enough salt is added to the dye bath the dyestuff will be precipitated, but ordinary care will prevent this.

A great many dyestuffs of different shade and quality are manufactured, and it is necessary at all times to keep a sufficient variety on hand to produce any shade that may be called for by a customer. The customer provides all samples to be matched. The dyer should keep a loose-leaf book filled with formulae and a patch of the shade that each formula produces. He compares the sample to be matched with the nearest formula and shade which he has on record. If in the subsequent dyeing procedure the tone is not just right, additions of the correct dyes are made until the match is perfect. The cloth is then taken off and another shade or the same shade is put on to be dyed on fresh cloth in the same manner.

A very good average production for a jig operator in a day of ten hours, for each jig is 2,000 yards. The average large dyehouse needs thirty or forty of these jigs to take care of this class of work.

There are numerous other dyeing machines and processes for dyeing Turkey Red, Sulphur Khaki, Logwood Black, Aniline Black, Sulphur Navy, Sulphur Cadet, Developed Colors and Fast Red. These are in a class by themselves in that they are practically fast to washing,

whereas those previously mentioned will not stand boiling with white cloth on account of bleeding.

The so-called "sun-fast dyes" are in some cases certain direct dyestuffs which have been dyed on the cloth and then after-treated with copper sulphate. This method gives a reasonably satisfactory result. Another method which gives the fastest known shades is the vat dyeing process. These dyes, in the first place, are insoluble in water, but with the addition of hydrosulphite become reduced and are soluble in an alkaline solution of caustic soda, which is usually added with the hydrosulphite. When the cotton cloth is passed through this reduced solution and subsequently reoxidized, a dyeing of great fastness to light and washing is produced.

Cloth dyed with sulphur dyes into a Khaki shade has been extensively used in making shirts and suits. The dyeing operation is done on a so-called continuous machine, which is simply a padding machine with several wash boxes attached to it. The dye is first dissolved in the smallest amount of water needed, together with the proper amount of sulphide, drawn off and strained into pails, and then added to the feeding tanks which are connected to the padder. This method prevents any foreign matter from getting into the feed pipes on the machine.

The preparation of the cloth for sulphur dyeing of this type is very simple. The pieces of gray cloth are taken from the bale in the gray room, laid out on a flat truck, and the tar number put on and pieces sewed together. It is then singed



LOUIS WOODS, JR., & COMPANY

Cotton Merchants

All Kinds of Raw Cotton, Low Grades Especially
Types and Samples Sent on Request

Phones: Main 5417-7705

Postal L. D.

MEMPHIS, TENNESSEE

WARWICK-AIKEN & COMPANY

COTTON

MISSISSIPPI, ARKANSAS, TENNESSEE COTTON OF SUPERIOR
QUALITY

MEMPHIS, TENNESSEE

ROBERTS, CARTER & COMPANY

Shippers of Arkansas, Mississippi and Tennessee Cottons

Ask your broker for ROBERTS Cotton, it pays

MEMPHIS, TENN.

W. J. BRITTON & CO.

RIVERS, BENDERS and STAPLE

COTTON

104 S. Front St.

Memphis, Tenn., U. S. A.

BARNWELL & COMPANY

Staple Cotton

MISSISSIPPI and ARKANSAS

Have Been Making Satisfactory
Shipments Since 1886

MEMPHIS, TENN.

over a gas flame and treated in a solution of disastafor in the same operation. This converts the starch in the gray goods to sugar and soluble starch, and these when washed thoroughly are entirely removed. This is sufficient treatment for light-weight goods, but goods weighing more than 4 yards to the pound should be given a second run in disastafor before washing. This insures the best possible method for cleaning the grays.

After the washing and drying, the goods are run through the dyeing machine at a rate of 50 to 60 yards a minute. For the particular grade mentioned a three-bowl paddler, giving the cloth two dips in the liquor, is very satisfactory. After leaving the squeeze rolls the cloth passes over a series of wooden rollers through the air, which oxidizes the sulphur dye. It then passes through the air, which oxidizes the sulphur dye. It then passes through several wash boxes to wash off any surplus color and sodium sulphide. Care must be taken that this water runs to waste as fast as it is sprayed on the cloth, otherwise the sodium sulphide would wash out of the cloth in sufficient quantity to charge the water enough to cause a stripping action on the cloth. After passing through three wash boxes, the cloth is entered into a solution of chrome, bluesone and acetic acid, which fastens the dye and makes a perceptible change in the tone. The oxidation bath is also connected to feeding tanks and should always be on the acid side. The preceding wash boxes do not remove all of the sodium sulphide from the goods, and if the oxidation bath is not strongly acidulated a black precipitate of copper sulphide will stain the cloth. A thorough washing after the chrome bath is also essential, as any chrome left in the goods will appear as yellow stains upon drying.

The method for getting the right shade is by bringing into use a patch box set on front of an ordinary wringer. Patches struck off in this manner are very satisfactory, and a 60-yard piece can be run on the strength of the result. In fact, after a little experience it is not necessary to stop the machine at the end of 60 yards. Patches must be taken out every twelve hundred yards to see that the depth of shade stays constant. This can be regulated by evaporation, using a closed coil at the bottom of the feed tank, and when too much evaporation takes place, causing the depth to be a little strong, the steam is shut off.

In order to control the tone desired a dyer must make a study of the exhaustive power of the dyestuffs he is using. Close observation of the first few pieces dyed will enable him to classify them according to their rate of exhaustion, and allowance can easily be made for this when starting a shade. Since the cloth does not take up the dye and moisture in the same proportion, the dyeing operation is always started with the proper amount of water in the pad trough. A little practice will enable one to make the first hundred yards an exact match to the last hundred on a 10,000-yard run.

Two feeding tanks are necessary on a continuous machine to secure maximum production, as one tank can be run off while the other is being filled and the necessary shade obtained by means of the patch box and wringer. An addition of 1 quart of soluble oil and 1 quart of pine oil to every 45 gallons of liquor insures perfect penetration of the dye and eliminates streaks and stains due to uneven absorption of the dye. —American Dyestuff Reporter.

Good Demand for Belgian Textiles. (Continued from Page 13.)

"The jute market is excellent but the demand for hemp is slackening since prices of the latter are now on a parity with flax.

"A general salary increase has taken place in the textile industry, with an additional 5 per cent advance announced for April 1. The Belgian wool industry is still paralyzed by the continuation of the strike at Verviers.

"At Ghent, Consul Nasmith states, a 5 per cent increase in wages was granted by all cotton mills on March 5. There has been no short time work. Yarn prices are reported as decreasing at present, and spinners fear restocking, as any improvement in exchange would upset the market and cause losses. The consumption of Congo and Brazilian cotton is increasing.

"About 37,000 bales of American cotton are stored in Ghent warehouses. The principal export markets for cotton yarns are France, United Kingdom and the Netherlands, with demand generally reduced. About half of the cotton yarn production is now exported. Difficulty is experienced in disposing of yarns to Belgian customers, due to high prices in the interior.

"A strike in the linen mills lasting only 48 hours had resulted in a 5 per cent increase in wages."



BARNWELL BROTHERS

GREENWOOD, MISSISSIPPI

Shippers—COTTON—Exporters

Selecting Benders and Staples a Specialty

BUYING AGENCIES THROUGHOUT THE DELTA

Branch Offices: Clarksdale

Cable Address: "Barn"

Represented at Gastonia, N. C., by S. E. Barnwell, Jr.

JOSEPH NEWBURGER, President

D. W. BROOKS, Vice-President

W. H. WILLEY, Vice-President

NORMAN MONAGHAN, Secy-Treas.

NEWBURGER COTTON CO.

(INCORPORATED)

MEMPHIS - TENN.

Mississippi Delta Cotton our Specialty

G. D. TAYLOR & CO.

Mississippi Delta Staples

Home Office

Memphis, Tennessee

W. J. DAVIS & COMPANY

Cotton for Spinners

Knoxville, Tenn.

Jackson, Miss.

New Orleans, La.

LAMAR SELLERS & CO.

Clarksdale, Miss.

COTTON

Delta Staples and Benders Our

Specialty

Cable Address: "Sellers"

Codes: Shepperson's 78-81

Meyer's 39th

Domestic—COTTON—Export

J. F. RODGERS & CO.

CLARKSDALE, MISS.

Merchants and Shippers

Cable Address "Rodchurch"

THREEFOOT BROS. & CO.

Cotton Merchants

Meridian, Miss.

Handlers of Mississippi

Cotton

MONTGOMERY & SUMNER

Yazoo City, Miss.

Mississippi Delta Cotton

Extra Staples a Specialty

Carolina Representative

Ernest D. Sumner Agency

Gastonia, N. C.

Branch Offices

Greenwood, Miss. Belzonia, Miss.

H. Chassaniol

CHASSANOL & CO.

High Grade Staple Cotton

Experienced Handlers of Low Grade

Staples

GREENWOOD, MISSISSIPPI

S. L. DODSON E. J. MOONEY DODSON & MOONEY

Cotton Merchants

Domestic—Export

BENDERS AND STAPLES

Main Office: CLARKSDALE, MISS.

B. F. OLIVER & CO.

COTTON

Staples and Benders

Clarksdale, Miss.

H. J. Murff

E. C. Sledge

H. J. MURFF & CO.

Delta Staples and Benders

CLARKSDALE, MISS.

MEMPHIS, TENN.



BARRETT & COMPANY, INC.

Largest Cotton Factors in the World

AUGUSTA ATHENS BIRMINGHAM, ALA. CHARLOTTE, N. C.

COTTON

Let Us Quote You

Southeastern Selling Agency

LESSER-GOLDMAN COTTON COMPANY

OF ST. LOUIS, MO.
P. H. PARTRIDGE, Agent, Charlotte, N. C.

Extra staples, and good 1 1-16 and 1 1-8 cotton from Arkansas, Oklahoma, and Texas, and Memphis territory.

Full 1" to commercial 1 1-8" cottons are extremely scarce, can be now had only at wide premiums and shortly may be unattainable. It will be worth the while of mills using these lengths to consider what they will do to supplement this shortage. We suggest the purchase 1 3-16" cottons by those who can use them, for they are still plentiful and very cheap.

COKER COTTON COMPANY,
Hartsville, S. C.

S. B. TANNER, JR. Postal Phone MOREHEAD JONES
Local Phone 821 Long Distance Phone 9998

TANNER & JONES

CHARLOTTE, N. C.

Representing

NEWBURGER COTTON CO.
Memphis, Tenn.

WILLIAMSON, INMAN & STRIBLING
Atlanta, Ga.

Stewart Brothers Cotton Co.
(Incorporated)
of New Orleans, La.
Cotton Merchants
STAPLES A SPECIALTY
Charlotte, N. C. Greenville, S. C.

William and York Wilson
Charlotte, N. C. Rock Hill, S. C.
Cotton Brokers
Charlotte Rock Hill
Phone 4806 Phone 695
Postal Phone

GEO. M. ROSE, JR.
COTTON
19½ East Fourth Street
Charlotte, N. C.

SANDERS, ORR & CO.
COTTON
Charlotte, N. C.

J. L. BUSSEY & CO.
COTTON
Greenville, S. C.

HAMBLEY & CO.
Spot Cotton Brokers
SALISBURY, N. C.

LINEBERGER BROS.
BROKERS—SHIPPERS
Carolina and Delta Staples
All Kinds Short Cotton
Lincolnton, N. C.

GRAY-BARKLEY CO., INC.

Staple Cottons
Gastonia, N. C.

B. H. PARKER & CO.
Cotton Brokers
Staples a Specialty
Codes 1878-1881 Bell Phone 51
Gastonia, N. C.

J. F. Mathewes Hamlin Beattie
Mathewes, Beattie & Co.
COTTON
Local Phone 17
Long Distance Phone 9912
Postal Phone
GREENVILLE, S. C.

RANKINS-ADAMS CO.
GASTONIA, N. C.
WE SPECIALIZE IN STAPLES
Local and Postal Phones
Codes—Shepperson's 1878-81

A. N. MEANS
COTTON
ALL KINDS OF STAPLE AND
SHORT COTTON
Bell and Postal Phones
Gastonia, N. C.

KENNETH GRIGG & CO.
COTTON
All Grades—Long and Short
Staples
Lincolnton, N. C.

H. H. WOLFE & CO.
COTTON
Monroe, N. C.

Cotton Goods

New York.—The cotton goods market was quiet last week and little demand is expected until after the break caused by the holidays. The higher cotton prices as the week ended lead to some recovery in goods prices, although quotations on some unfinished lines have showed a further decline. The wage increases that have been granted by a very large number of mills in both the north and south are expected to cause another upward revision in cotton prices.

Advances on a number of finished lines, such as 4-4 branded muslins, have been withheld recently on account of the uncertainty of the situation, but are expected to be announced now that wages have been advanced.

The demand for novelties and fancy goods in printed effects continued very active during the week. New lines of percales in fancy patterns sold at 16 cents. Prices on some print cloths, sheetings and pongees were a half cent lower as the week closed than during the previous week. The active demand for gingham and denims continued during the week.

Cotton goods production continues very large. Mills in all sections are reported on full time and a great many plants are running overtime.

Print cloths were very quiet. There were reported sales in second hands of 38 1-2 inch 64x60s at 10 7/8c and 10 15-16c, but in each instance the transactions did not involve more than 1,000 pieces. It was possible to pick up odd lots from second hands at prices 1-4c under anything mills are considering, and it was generally believed that the presence of a single large buyer looking about would lift values to the quoted levels if not higher.

A somewhat similar condition was reported in brown sheetings. The volume of transactions was so limited that irregular quotations attracted little attention among mill agents. Fine goods were particularly quiet.

The tire fabric market has re-

mained extremely quiet. Mills that had average production several weeks ago are still in the same position. A number of inquiries were noted but led to no business being placed so far, it was said. Quotations hold unchanged, though buyers can find sellers ready to share prices slightly.

Cotton goods prices were quoted as follows:

Print cloths, 28-inch, 64x64's, 8 5-8 cents; 64x60's, 8 3-8 cents; 38 1-2 inch 64x64's, 11 1-4 cents; brown sheetings, southern standards, 16 cents; to 16 1-2 cents; denims, 220s 26 cents and 26 1-2 cents; tickings, 8 oz. staples 30 cents; prints 11 cents staple gingham, 19 cents; dress hams 21 1-2 cents and 24 cents.

Improved Indian Demand for Cloth.

An encouraging sign of improvement in business conditions in India is the increased demand in Ahmedabad for the cloth which is made there. The mills are now working full time and are considering running with a second shift. (Trade Commissioner C. C. Batchelder, Calcutta, January 24.)

SURE DOES
WASHING POWDER
MAKE SUDS
(Reg. U. S. Pat. Off.)

BEST for CLEANING
MILL FLOORS

Poland Soap Works
Anniston, Ala.

COMPLETE DYEHOUSE
EQUIPMENT
Special Machinery for
Textile Mills
The Klauder-Weldon Dyeing
Machine Co.
Bethayres, Pa.

COTTON

We offer to the mills and the trade as well as the general public a most complete, up-to-date and reliable cotton brokerage service. All orders given personal attention. Write for market letter or phone us for latest quotations and news on the market which will be gladly furnished gratis.

A. A. HAUGHTON

Cotton Commission Broker

4 W. Third St. Room 209.

Phone 4384

L. D. Phone 9993

MOSS & FERGUSON
New York

Members
New York Cotton Exchange
Chicago Board of Trade
New York Produce Exchange

BRADSHAW-ROBERSON COTTON COMPANY

COTTON MERCHANTS

Capital \$300,000

DOMESTIC AND EXPORT

Head Office, Greensboro, N. C.

AGENCIES: Atlanta, Ga.; Elberton, Ga.; Savannah, Ga.; Toccoa, Ga.;
Charlotte, N. C.; Wilson, N. C.; Norfolk, Va.; Dallas, Texas; Milan, Italy.

The Yarn Market

New York.—Under the influence of a quiet market and lower cotton prices, some concessions were made in the yarn market last week, but the market as a whole remained firm, spinners asking prices showing very little change. Yarn consumers are apparently well covered for the present and are holding off the market, expecting to be able to get yarn at lower prices. While this belief is held in some quarters the fact that the statistical position of raw cotton has changed very little would indicate that yarns will go considerably higher yet, depending of course on the demand.

Somewhat easier prices were quoted as the week closed. Lots of spot knitting yarns would be had at 1 to 2 cents under list prices. Duck yarns were slightly lower, while tinged insulating yarns remained unchanged. In the combed yarn list, a softer tendency was noted. Although the average spinner held his prices up, concessions were made in spots and lead to some fairly large orders.

Prices showed considerable irregularity and it was hard to quote list prices that accurately represented the market. A strong belief has developed among selling agencies that the present lull is just a preliminary to another general rise in prices. It is the belief that a renewed demand will be immediately followed by higher quotations. The difference of buyers during the past week or so has so resulted in the weak spots mentioned above, but a more active call is practically certain to stiffen prices again.

Quotations in this market were published as follows:

Southern Two-Ply Warps.		
10s	48	a
12s to 14s	50	a
2-ply 16s	51	a
2-ply 20s	54	a
2-ply 24s	60	a
2-ply 26s	62	a
2-ply 30s	65	a
2-ply 40s	72	a73
2-ply 50s	85	a

Southern Two-Ply Skeins.		
5s to 8s	46	a
10s to 12s	47	a48
14s	49	a
16s	50	a
20s	54	a
24s	60	a
30s	64	a65
36s	70	a71
40s	72	a73
40s ex	74	a
50s	84	a85
60s	90	a
Carpet—		
1, 3 and 4-ply	44	a45
5-ply	44	a45

Tinged Insulating Yarns.		
6s, 1-ply	42	a42½
8s, 2, 3 and 4-ply	44	a
10s, 1-ply and 2-ply	45	a
12s, 2-ply	40	a
20s, 2-ply	53	a
26s 2-ply	60	a61
30s, 2-ply	63	a64

Duck Yarns.		
3, 4 and 5-ply—	46	a
8s	47	a
10s	48	a
12s	48	a
3, 4 and 5-ply—	52	a
16s	52	a
20s	54	a

Southern Single Chain Warps.		
6s to 10s	46	a47
12s	48	a
14s	49	a
16s	51	a
20s	54	a
24s	57	a58
26s	60	a61
30s	62	a63
40s	73	a74

Southern Single Skeins.		
6s to 8s	45	a
10s	46	a
12s	47	a
14s	48	a
16s	49	a
20s	52	a
24s	55	a
26s	57	a
30s	62	a

Southern Frame Cones		
8s	46	a
10s	46½	a
12s	47	a
14s	47½	a
16s	48	a
18s	49	a50
20s	50	a51
22s	51	a52
24s	53	a54
26s	55	a56
30s	57	a58
30s dbl crd	60	a61
30s tying in	56	a
40s	68	a69

Southern Combed Peeler Skeins, Etc.		
2-ply 30s	70	a
2-ply 36s	80	a
2-ply 40s	85	a
2-ply 50s	92	a
2-ply 60s	100	a
2-ply 70s	110	a
2-ply 80s	125	a127½

Southern Combed Peeler Cones.		
10s	55	a
12s	56	a
14s	57	a
16s	58	a
18s	59	a
20s	60	a
22s	62	a
24s	63	a64
26s	63	a
28s	64	a
30s	66	a
32s	69	a
34s	74	a
36s	76	a
40s	80	a
50s	90	a
60s	110	a
Eastern Carded Peeler Thread Twist Skeins.		
20s, 2-ply	60	a
22s, 2-ply	61	a
24s, 2-ply	63	a
30s, 2-ply	68	a
36s, 2-ply	75	a
40s, 2-ply	78	a
45s, 2-ply	85	a
50s, 2-ply	92	a

Eastern Carded Cones.		
10s	47	a
12s	48	a
14s	49	a
16s	50	a
20s	52	a
22s	53	a
26s	57	a
28s	58	a
30s	63	a

British Artificial Silk Trade.

Artificial silk is being turned out in constantly increasing quantities, in the United Kingdom, the output of the dominating concern being 50 per cent greater today than in January a year ago, says Trade Commissioner H. D. Butler. Estimates of British production vary widely; an official of one company states 300,000 pounds a week to be the correct figure while another estimate places the average daily output at 15,000 pounds.

The bulk of the British production of artificial silk is made by the viscose process. Of the total viscose output today, hosiery, knit goods, ties and braids consume about 50 per cent; woven cloths between 10 and 20 per cent; artificial silk yarns twisted with wool about 5 per cent; and elastic webbing between 5 and 7 per cent.

Prices of hemp exported from the Florence district f.o.b. Bologna per 100 kilos (220.46 pounds) were: Good quality, 480-500 lire; medium, 440-460 lire; ordinary, 375-400 lire; poor, 190-200 lire, Consul W. Roderick Dorsey Florence, reports.

CATLIN & COMPANY

NEW YORK BOSTON PHILADELPHIA CHICAGO

Commission Merchants

Cotton Cloth and Cotton Yarn

SOUTHERN OFFICE

910-11 Commercial Bank Bldg. CHARLOTTE, N. C.

D. H. Mauney, Pres. Phil S. Steel, Vice-Pres. Frank W. Felsburg, 2nd V.-Pres.
J. S. P. Carpenter, Treasurer D. A. Rudisill, Secretary

Mauney-Steel Company

COTTON YARNS

DIRECT FROM SPINNERS TO CONSUMER

237 Chestnut Street Philadelphia, Pa.

Eastern Office, 336 Grosvenor Bldg., Providence, R. I.

Southern Office: Cherryville, N. C.

MILLS DESIRING DIRECT REPRESENTATION AND HAVE THEIR PRODUCT SOLD UNDER THEIR OWN MILL NAME WILL PLEASE COMMUNICATE.

RIDLEY WATTS & Co.

COMMISSION MERCHANTS

44-46 Leonard Street NEW YORK CITY

Branch Offices

Chicago

St. Louis

Philadelphia

Baltimore

Boston



MERROWING

Established 1838

FOR—

Stocking Welting

Toe Closing

Mock Seaming

Maximum Production

Minimum Cost of Upkeep

Unexcelled Quality of Work

THE MERROW MACHINE COMPANY

20 Laurel Street, Hartford, Conn.

Paulson, Linkroum & Co., Inc.

52 Leonard Street, NEW YORK CITY, U. S. A.

Philadelphia

Providence

Chicago

Charlotte

COTTON YARNS

OF EVERY DESCRIPTION FOR

WEAVING AND KNITTING

We Specialize In Cotton Yarn For Export

Jacques Wolf & Company

MANUFACTURING CHEMISTS AND IMPORTERS
PASSAIC, N. J.

Finishing and Sizing Preparations for Cotton

BLEACHING OIL
Kier Boil Assistant

ANTISTAIN

CREAM SOFTENER

ALIZARINE ASSISTANTS

HYDROSULPHITE
For Stripping and Dis-
charge Printing

MONOPOLE OIL
Reg. Trade Mark No. 70991

LEVULINE
To soften Sulphur
and Developed Black

SCROOPING COMPOUND
For Silk and
Cotton Hosiery



Ring Traveler Specialists

U. S. Ring Traveler Co.

159 Aborn Street, PROVIDENCE, R. I.
AMOS M. BOWEN, Treasurer

Wm. P. VAUGHAN, Southern Representative
P. O. Box 792 GREENVILLE, S. C.

U. S. Ring Travelers are **uniformly tempered** which insures even-running spinning. They are also correct as to **weight and circles**. Quality guaranteed.

C
A
R
D

B
A
N
D
S

CARD BANDS

Spinning Twister Spooler
Bands

Braids Tapes Cotton Rope

JOHN B. YOUNG

LAWNDALE, - - PHILADELPHIA, PA.

C
A
R
D

B
A
N
D
S

Want Department

Weave Room Overseer.

Open for job on short notice. Have had considerable experience on starting up and operating looms on sheeting, Duck Towels and Damask. Will consider any size mill. Write L. B., care Southern Textile Bulletin.

Wanted

2,500, three to four inch rings, cotton twister spindles. State make and when made, price and where can be seen. Address, Key 500, care Textile Bulletin.

Master Mechanic.

Want position as master mechanic or superintendent of cotton mill construction. Have had 20 years' experience. References furnished. W. M. Phillips, 902 East Eighteenth Street, Charlotte, N. C.

Loom Fixers Wanted

Two first class Lowell loom fixers. Appril T. V. Hughey, overseer weaving, Autauga Cotton Mills, Autauga, Ala.

For Sale

Nine 7x3½ Saco Water Power Speeders 120 spindles to frame. These frames boxed ready for shipment. Have been approved by leading Textile Engineers. Write or wire, A. B. Carter, Gastonia, N. C.

Joseph L. Davidson Co.

Established 1889

Designing Card Stamping Repeating
FOR ALL TEXTILE FABRICS

2525 N. Second St., Philadelphia, Pa.

Improved Dobby Chain



Dobby Cords

Rice Dobby Chain Co.
Millbury, Mass.

Send Us Your Order To-day

For Quick Sale.
25 High-Speed latest type 8 head 12" lap Whitin Combers.
4 Sliver and Ribbon lap machines.
3 Mason Cards.
1 9x4½ Whitin Intermediate.
1 10x15 Woonsocket Int.
5,000 Draper No. 2, 7¼ Stroke new warp bobbins.
3,000 Whitin medium 6½ stroke warp bobbins.
25,000 4x5 Wood Spools.
2,000 3½x5 Wood Spools.
Textile Machinery Exchange,
Box 1355

Position Wanted

General Superintendent or General Manager of Cotton Yarn or Cloth Mill—thoroughly efficient and practical cotton manufacturer. Available April 15.

Address: "Bristol," care Southern Textile Bulletin.

DRAKE CORPORATION

"Warp Dressing Service
Improves Weaving"

NORFOLK - - VIRGINIA

EMPLOYMENT BUREAU

The fee for joining our employment bureau for three months is \$2.00 which will also cover the cost of carrying a small advertisement for one month.

If the applicant is a subscriber to the Southern Textile Bulletin and his subscription is paid up to the date of his joining the employment bureau the above fee is only \$1.00.

During the three months' membership we send the applicant notices of all vacancies in the position which he desires.

We do not guarantee to place every man who joins our employment bureau, but we do give them the best service of any employment bureau connected with the Southern Textile Industry.

WANT position as overseer weaving. Practical weaver of long experience who understands construction on wide variety of both white and colored goods. Good references. Address No. 3737.

WANT position as master mechanic. Now employed, but wish larger job. Have had 20 years experience in machine and mill shops, familiar with both steam and electric drive. Best of references as to character and ability. Address No. 3758.

WANT position as carder or spinner. Am practical carder, comb and spinner. Thoroughly understand combed hosiery and warp yarns. Finished on tubes or skeins. Capable of handling superintendents job. Best of references showing character, ability and experience. Address No. 3759.

WANT position as weaver or second hand in large room. Prefer white work. Am practical man and have long experience in good mills. Good manager of help, good habits. Excellent references. No. 3760.

WANT position as overseer weaving or superintendent. Good man of long experience. Can come on short notice. Good references. Address No. 3761.

WANT position as carder in large room. I can furnish references from a number of the best mill men in the South, showing an excellent record in every respect. Address No. 3762.

WANT position as supt. or weaver. Have had 12 years experience as overseer weaving, 4 years as superintendent. Prefer mill in Charlotte territory. Excellent references. Address No. 3765.

WANT position in mill office. Experienced bookkeeper, office manager and all around mill office man. Best of references. Address No. 3766.

WANT position as superintendent of weaving mill. North Carolina preferred. Have had 10 years experience as overseer on present job. Fully capable of handling large mill. Best of references from leading mill officials. Address No. 3767.

WANT position as superintendent of small yarn mill, overseer spinning or master mechanic. Long experience in all departments of mill and am practical and efficient man. Best of references. Address No. 3768.

WANT position as master mechanic. Long experience in boiler and machine rooms, expert on both steam and electric drive. Excellent references. Address 3769.

WANT position as superintendent or overseer weaving. Long experience in good mills, on wide variety of fabrics. Hard worker, good manager of help and can give fine references. Address No. 3773.

WANT position as carder and spinner, or both. Have had 25 years as such. 16 years in one mill as overseer. Can give excellent references from present employers. Address No. 3771.

WANT position as mechanic or electrician or would take assistant's place where there is good opportunity for advancement. Can furnish excellent references from superintendent and chief engineer where now employed. Address No. 3773.

WANT position as carder or spinner. Long experience, also graduate of I. C. S. course. Best of references. Address No. 3774.

WANT position as carder. Now holding carder's place in 30,000 spindle mill. Am 42 years old, strictly sober, good manager of help and can get good production. Experienced on all numbers from 4s to 30s also on waste yarns. Excellent references. Address No. 3776.

WANT position as supt. of yarn mill, or would take carding and spinning. Now with mill on chambra. My experience covers long term of years, both as second hand and overseer. Excellent references. Address No. 3777.

WANT position as carder, spinner, or overseer spooling, winding, warping. Can furnish excellent references to show ability, experience and character. Address No. 3778.

WANT position as overseer spinning. 12 years as overseer spinning, spooling, warping and twisting. Now employed as carder, and am giving satisfaction, but wish larger place. Graduate I. C. S. course. Excellent references. Address No. 3779.

FIRST CLASS ROLLER coverer wants to change. Married, middle aged, best of references. Address No. 3780.

WANT position as superintendent or overseer weaving, white or colored work, plain and fancy weaves. Excellent weaver, good manager of help. Fine references. Address No. 3782.

WANT position as superintendent. First class man, 36 years in mill, held last job as superintendent in large mill for 5 years. Have been overseer for 15 years, superintendent for 5. Experienced carder, spinner and weaver. Can handle any kind of mill on white goods. Address No. 3785.

WANT position as supt. on colored, or plain or fancy goods, or assistant supt. in large mill. Would consider place as overseer weaving at room with more than 1,000 looms. 20 years in weaving, excellent references. Address No. 3787.

WANT position as overseer spinning. On present job for 4 years. Long experience. Age 38, married, have family of mill help. Fine references. Address No. 3788.

WANT position as shipping clerk or general office man in good mill. Experienced shipping clerk, pay roll and general office man. Have spent 10 years in mill. Age 26, settled and sober. Excellent references. Address No. 3789.

WANT position as overseer weaving. Now employed, but wish larger place. Excellent record over long term of years, first class references. Address No. 3790.

WANT position as overseer weaving, or second hand in large room. Experienced on many lines of goods, practical man, good worker and of good habits. References. Address No. 3791.

WANT position as overseer carding, or spinning, or both. Best of references show character and ability. Address No. 3792.

WANT position as overseer weaving, age 42, 12 years as overseer, experienced on plain twills and ducks. Now employed. Best of references. Address No. 3793.

WANT position as overseer weaving. Now giving satisfaction, but wish to change. Excellent references to show experience and ability. Address No. 3794.

WANT position as superintendent of weave mill. Long experience and am first class man. References to show character and ability. Address No. 3795.

WANT position as overseer carding of spinning. Have had 8 years as overseer age 35, married and can give good references. Address No. 3795.

WANT position as supt. of yarn mill, or carder and spinner. Can furnish references to show an excellent past record. Address No. 3796.

WANT position as supt. Now employed in large weave mill and giving satisfaction, but wish to change for good reason. Best of references. Address No. 3797.

WANT position as supt. of small yarn mill, or carder on large mill. Have been supt. for 9 years and always gave satisfaction. Excellent references. Address No. 3798.

WANT position as overseer weaving. Am practical man whose experience has been long and varied and can get quality and quantity production. Fine references. Address No. 3799.

WANT position as superintendent, weave mill on colored goods preferred. Have long record of successful service. Can take stock in good mill. Highest class references. Address No. 3800.

WANT position as superintendent. Practical man with long experience in number of good mills. Can furnish excellent references showing character and ability. Address No. 3801.

WANT position as carder or spinner, or both. Many years experience in both departments and am thoroughly trained and practical man. Best of references. Address No. 3802.

WANT position as overseer carding or would take second hand in large room. Now employed as overseer. Satisfactory references as to past record. Address No. 3803.

WANT position as superintendent, or would take assistant's place. Want mill on colored work, experienced on all kinds of colored goods, age 39, married and can give good references. Address No. 3804.

WANT position as overseer - weaving. Familiar with variety of weaves and can furnish excellent references. Address No. 3805.

WANT position as superintendent, overseer weaving. Thoroughly trained in all departments of mill, I. C. S. graduate. Understand jacquard weaving. Age 30, married, no bad habits. Good references. Address No. 3806.

WANT position as overseer spinning or as assistant superintendent by man who can get results, either yarn or weave mill. Best of references. Address No. 3807.

WANT position as overseer spinning. Age 37, 12 years as overseer. First class references. Address No. 3808.

WANT position as superintendent, or overseer large card or spinning room. High class man, experienced and practical, references to show good past record. Address No. 3809.

WANT position as superintendent of large yarn mill. Have been overseer and superintendent in some of best yarn mills in North Carolina. Have fine record as to quality and quantity at low cost. Address No. 3810.

WANT position as carder or spinner or both. Capable of handling large room in first class man. Long experience, fine references. Address No. 3811.

WANT position as carder or spinner. Experienced mill man, now running card room at night, but want day job. Good references as to character and ability. Address No. 3812.

WANT position as superintendent. Practical man of long experience and ability to get good results. Now employed as superintendent. Good references. Address No. 3813.

WANT position as master mechanic. Have had 24 years experience in cotton mill shops both steam and electric drive. References. Address No. 3813-A.

WANT position as overseer weaving on Draper looms, plain white goods preferred. Now employed, but desire better job. Good references from good mill men as to character and ability. Address No. 3815.

WANT position as overseer carding. Good man, now employed, but wish better position. First class references showing good past record. Address No. 3816.

WANT position as superintendent of yarn or weave mill. Long experience in carding, spinning and weaving, and winding. Can get quantity and quality production at lowest cost. Age 39, good character and references. Address No. 3817.

WANT position as superintendent. Practical manufacturer of ability and experience. Good manager of help. Fine references. Address No. 3818.

WANT position as overseer weaving. First class weaver in every respect, sober, reliable and hard worker. Experienced on wide variety of goods. Good references. Address No. 3819.

WANT position as superintendent or manager of yarn or cloth mill in the Carolinas. Now general superintendent of large mill, have held job satisfactorily for three years but have good reasons for wanting to change. Good references. Address No. 3821.

WANT position as superintendent, overseer carding or assistant superintendent on yarn or plain cloth mill. High class, reliable man, good manager of help. A-1 references. Address No. 3822.

WANT position as overseer weaving. Strictly high class man of good character; long experience in weaving, best of references. Address No. 3823.

WANT position as superintendent, or carder or spinner. Now employed as spinner in mill on fine yarns and am giving entire satisfaction, but want

larger place. Good references. Address No. 3824.

WANT position as superintendent, carder or spinner. Practical man of long experience in good mills. Fine references. Address No. 3825.

WANT position as master mechanic. Now employed, but want larger job. Many years experience as mechanic, steam and electric drive. Excellent references. Address No. 3826.

WANT position as superintendent or traveling salesman. Experienced mill man and can give excellent references. Address No. 3827.

WANT position as superintendent. Have held position as such in some of the best mills in South and give satisfactory references to any mill needing first class man. Address No. 3827.

WANT position as master mechanic. Long experience in mill machine shop, fully competent to handle large job. Fine references. Address No. 3829.

WANT position as overseer carding or spinning, or superintendent. Practical man who has had many years experience as superintendent and overseer and can get satisfactory results. Best of references. Address No. 3821.

WANT position as superintendent of yarn mill or carder or spinner. Thoroughly familiar with these departments and am well qualified to handle either a room or a mill. Good references as to character and ability. Address No. 3832.

WANT position as superintendent of mill in North Carolina making yarns or print cloths. Now employed as superintendent of 27,000 spindle mill making 30s hosiery yarn and 64x60s print cloth. Am giving satisfaction but have good reason for making change. Best of references. Address No. 3833.

WANT position as superintendent or overseer carding. Long experience as both and can get good production at low cost. Would like to correspond with mill needing high class man. Address No. 3834.

WANT position as overseer of carding. Good worker of long experience in number of good mills. First class references to show past record. Address No. 3835.

WANT position as superintendent or overseer carding and spinning. Now employed, but wish larger place. Competent, reliable man who can give satisfaction in every way. Good references. Address No. 3836.

WANT position as superintendent or manager. Have had long experience as superintendent and am high class man in every respect. Can handle mill on any class of goods made in South. Want to correspond with mill needing high class executive. Excellent references from reliable mill men. Address No. 3837.

WANT position as overseer weaving. Practical weaver who can get big production at the right cost. Fine references. Address No. 3838.

WANT position as overseer weaving. Can handle any fabric made in South. Have had over 27 years experience from loom fixer to overseer weaving and was promoted steadily by one of largest mills in the South. Married, have family, religious worker, good manager of help. Can give excellent list of references. Address No. 3839.

WANT position as superintendent, prefer South Carolina or Georgia. Now employed as assistant superintendent and weaver and am giving entire satisfaction. Have good reasons for wishing to change. Excellent references. Address No. 3840.

WANT position as overseer weaving, prefer job of fancies. Have been weaver for past 10 years with one of the finest mills in the South. Excellent references to show a fine record. Address No. 3841.

WANT position as superintendent, yarn mill preferred. High class man who is well trained and has had long experience. Best of references. Address No. 3842.

WANT position as superintendent. Now employed as such, but want better job. Good weaver as well as superintendent and get operate weave mill on very satisfactory basis. Address No. 3843.

WANT position as superintendent, carder or spinner. Now employed as superintendent. Long experience as both overseer and superintendent and can get satisfactory results. Address No. 3844.

CLASSIFIED LIST OF ADVERTISERS

- ADDING MACHINES**
Monroe Calculating Machine Co.
- AIR CONDITIONERS**
The Bahnsen Co.
- AUDITORS**
Scott, Charnley and Co.
Geo. H. Adams Co.
- ALBANE**
Roessler & Haaslaacher.
- ARCHITECTS & MILL ENGINEERS**
Sirls & Co., J. E.
- ASH HANDLING EQUIPMENT**
Link-Belt Company.
- AUTOMATIC FEEDS FOR COTTON**
Saco-Lowell Shops.
Whitlin Machine Works.
- BALL BEARING**
Fafnir Bearing Co.
S. K. F. Industries, Inc.
- BALLERS**
Economy Baler Co.
- BALLERS**
Saco-Lowell Shops.
- BALING PRESSES**
Economy Baler Co.
- BANDS AND TAPE**
American Textile Banding Co.
Southern Textile Banding Mill.
John B. Young.
- BANKS**
Bank of Charleston
Charleston Security Co.
Charleston Trust Co.
- BEAMING AND WARPING MACHINERY**
Draper Corporation.
T. C. Entwistle Co.
Saco-Lowell Shops.
Morse Chain Co.
- BEAM HEADS**
Mossberg Pressed Steel Corp.
- BEAMS (All Steel)**
Mossberg Pressed Steel Corp.
- BEARINGS, ROLLER**
Hyatt Roller Bearing Co.
- BEARINGS, SHAFT**
Fafnir Bearing Co.
- BEARINGS, ROLLER**
Hyatt Roller Bearing Co.
- BEARINGS, SHAFT**
Wood's, T. B. & Sons Co.
- BEARINGS, TEXTILE MACHINERY**
Hyatt Roller Bearing Co.
- BELT CONVEYORS**
Link-Belt Company.
- BELT TIGHTENERS**
Link-Belt Company.
- WOOD'S, T. B. & Sons Co.**
- BLEACHING MATERIALS**
Arabol Mfg. Co.
Atlantic Dyestuff Co.
Borne, Scrymser Co.
Bosson & Lane.
Klipstein & Co., A.
National Aniline & Chemical Co.
Roessler & Haaslaacher Chem. Co.
Seydel Chemical Co.
Stein, Hall & Co.
United Chemical Products Co.
Wolf, Jacques & Co.
- BELTING**
Baltimore Belting Co.
Grant Leather Corporation.
Edward R. Ladew Company
Graton and Knight Mfg. Co.
- BELT LACING**
Flexible Steel Lacing Co.
- BELTING, LINK**
Link-Belt Company.
Morse Chain Co.
- BELTING CEMENT**
Grant Leather Corporation.
- BENCH DRAWERS, STEEL**
Lupton's, David, Sons Co.
- BENCH LEGS, PRESSED STEEL**
Lupton's, David, Sons Co.
- BICARBONATE OF SODA**
Mathieson Alkali Works, Inc.
- BLEACHING MATERIALS**
J. B. Ford Company
- BOBBINS**
David Brown Co.
Lowell Shuttle Co.
Jordan Mfg. Co.
U. S. Bobbin & Shuttle Co.
Courtney, The Dana S., Co.
Walter L. Parker Co.
- BOBBINS AND SPOOLS**
Mossberg Pressed Steel Corp.
- BOXES**
Jennings Mfg. Co.
Wilts Veneer Co.
- BOX SHOOKS**
Jennings Mfg. Co.
Wilts Veneer Co.
- BRUSHES**
Atlanta Brush Co.
- BLOWERS AND BLOWERS SYSTEMS**
Carrier Engineering Corp.
J. N. McCausland and Co.
Parke-Cramer Co.
- BOBBIN STRIPPER**
Terrell Machine Co.
- BOILERS (STEAM)**
Edge Moor Iron Co.
- BOILERS (WATER TUBE)**
Edge Moor Iron Works
- BRETTON MINERAL OIL**
Borne, Scrymser Company.
- CALCULATING MACHINES**
Monroe Calculating Machine Co.
- CALENDARS**
H. W. Butterworth and Sons Co.
- CARDS**
Saco-Lowell Shops.
Whitlin Machine Works.
- CARD BANDS**
Arthur S. Brown Mfg. Co.
- CARD CLOTHING**
Ashworth Bros.
- CARD GRINDING MACHINERY**
Dronafeld Bros.
T. C. Entwistle Co.
Roy & Son Co., B. S.
Saco-Lowell Shops.
Whitlin Machine Works.
- CARRIER APRONS**
Link-Belt Company.
- CAUSTIC SODA**
Mathieson Alkali Works, Inc.
- CHAIN BELTS AND DRIVES**
Link-Belt Co.
Morse Chain Co.
- CLOTH PRESSES**
Economy Baler Co.
- COAL HANDLING MACHINERY**
Link-Belt Co.
- COMBERS**
John Hetherington and Sons Ltd.
- COMBS (Beamers, Warpers and Slashers)**
T. C. Entwistle Co.
- COMMISSION MERCHANTS**
Catlin & Co.
- COMPUTING MACHINES**
Monroe Calculating Machine Co.
- CHLORIDE OF LIME**
CHEMICALS
Borne, Scrymser Company.
J. B. Ford Company
International Chemical Co.
Mathieson Alkali Works, Inc.
- CLEANING DEVICES**
R. P. Sweeney
- CLUTCHES, FRICTION**
Wood's, T. B. & Sons Co.
J. H. Lane & Co.
Ridley, Watts & Co.
Whitman & Sons, Clarence.
Paulson-Linkroum & Co.
- COMPRESSORS (AIR)**
Allis-Chalmers Mfg. Co.
- CONDENSERS**
Allis-Chalmers Mfg. Co.
- CONDITIONING MACHINES**
American Moistening Co.
- CONDUIT FITTINGS**
Chicago Fuse Mfg. Co.
- CONES, PAPER**
Southern Novelty Co.
- CONE BELTS**
Arthur S. Brown Co.
- CONVEYING SYSTEMS**
Link-Belt Company.
- COOLERS (AIR)**
See Humidifying Apparatus.
- COTTON**
Hambley & Co.
C. F. Jones & Co.
Bradshaw-Roberson Cotton Co.
J. L. Bussey & Co.
Gray-Barkley Co.
Lesser-Goldman Cotton Co.
Mathews, Seattle & Co.
B. H. Parker & Co.
Rose Bros.
Sanders, Orr & Co.
Stewart Bros. Cotton Co.
Threefoot Bros. & Co.
Wilkins & Gibson.
Wm. & York Wilson.
Coker Cotton Co.
H. H. Wolfe & Co.
Johnson & Howie.
Kenneth Grigg & Co.
Lineberger Bros.
Tanner & Jones.
Domo, F. J., & Co.
Oliver & Houghton.
Eblin & Co.
- COTTON MACHINERY**
Ashworth Bros.
Atherton Grid Bar Co.
Barber-Colman Co.
Dixon Lubricating Saddle Co.
Draper Corporation.
T. C. Entwistle Co.
Metallic Drawing Roll Co.
National Ring Traveler Co.
Roy & Son, B. S.
Saco-Lowell Shops.
Stafford Co., The.
Universal Winding Co.
Whitlin Machine Works.
Whitinsville Spinning Ring Co.
Tolhurst Machine Works.
Terrell Machine Co.
- COTTON OPENERS AND LAPPERS**
Saco-Lowell Shops.
Whitlin Machine Works.
- COTTON SOFTENERS**
Borne, Scrymser Co.
Arabol Mfg. Co.
Bosson & Lane.
Klipstein & Co., A.
Seydel Chemical Co., The.
Wolf, Jacques & Co.
- COTTON WASTE MACHINERY**
Saco-Lowell Shops.
Whitlin Machine Works.
- COUPLINGS, SHAFT**
Wood's, T. B. & Sons Co.
- CRANES**
Link-Belt Company.
- DESKS, STEEL FACTORY**
Lupton's, David, Sons Co.
- DISINFECTANTS**
Carolina Specialty Co.
Masury Young Co.
Seydel Chemical Co., The
- DOBBY CHAIN**
Rice Dobby Chain Co.
- DOFFING BOXES**
Rogers Fibre Co.
- DOUBLERS**
Saco-Lowell Shops.
- Universal Winding Co.**
- DOORS, STEEL**
Lupton's, David, Sons Co.
- DRAWING ROLLS**
Metallic Drawing Roll Company.
- DRIVES, SILENT CHAIN**
Morse Chain Co.
Link-Belt Co.
- DROP WIRES**
Mossberg Pressed Steel Corp.
- DRYERS, CENTRIFUGAL**
Tolhurst Machine Works.
Roy & Son Co., B. S.
Tolhurst Machine Works.
- DYEING, DRYING, BLEACHING AND FINISHING MACHINERY**
H. W. Butterworth and Sons Co.
Franklin Process Co.
Klauder-Weldon Dye Machinery Co.
Perkins, B. F., & Sons, Inc.
- DYESTUFFS AND CHEMICALS**
Atlantic Dyestuff Co.
Borne, Scrymser Company.
Bosson & Lane.
E. I. du Pont de Nemours & Co., Inc.
Klipstein & Co., A.
Metz, H. A., & Co.
National Aniline & Chemical Co.
Newport Chemical Works.
Roessler & Haaslaacher Chemical Co.
Seydel Chemical Co.
Stein, Hall & Co.
United Chemical Products Co.
Wolf, Jacques & Co.
- ELECTRIC BLOWERS**
Clements Mfg. Co.
- ELECTRICAL CONTRACTORS**
Huntington & Guerry.
Boulligny, R. H., Inc.
- ELECTRIC FANS**
Allis-Chalmers Mfg. Co.
- ELECTRIC HOISTS**
Allis-Chalmers Mfg. Co.
Link-Belt Company.
- ELECTRIC LIGHTING**
Huntington & Guerry.
Allis-Chalmers Mfg. Co.
Boulligny, R. H., Inc.
Standard Electric Co.
- ELECTRIC MOTORS**
Allis-Chalmers Mfg. Co.
- ELECTRIC SUPPLIES**
Chicago Fuse Mfg. Co.
- ELEVATORS**
Link-Belt Company.
- ELEVATOR, REVOLVING PORTABLE**
See Portable Elevators.
- ENGINEERS, MILL**
See Architects and Mill Engineers.
- ENGINEERS (VENTILATING)**
Parke-Cramer Co.
- ENGINES (STEAM, OIL, GAS, PUMP-ING)**
Allis-Chalmers Mfg. Co.
Sydnor Pump & Well Co.
See also Ventilating Apparatus.
- EXPERT TEXTILE MECHANIC**
J. D. Hollingsworth.
- EXTRACTORS**
American Laundry Machinery Co.
Tolhurst Machine Works.
See Electric; also Ventilator.
- FEED WATER PUMPS**
Morehead Mfg. Co.
- FENCES**
Page Fence and Wire Products Assn.
- FINISHING COMPOUNDS**
Borne, Scrymser Co.
Arnold, Hoffman and Co., Inc.
- FINISHING MACHINERY**
See Dyeing, Drying, Bleaching and Finishing.
- FLAT WALL PAINT**
E. I. du Pont de Nemours & Co., Inc.
Wadsworth, Howland and Co., Inc.
- FLOOR CLEANERS**
Champion Chemical Co.
- FLOOR STANDS**
Wood's, T. B. & Sons Co.
- FLUTED ROLLS**
Whitlin Machine Works.
- FLYER PRESSERS AND OVERHAULERS**
Southern Spindle & Flyer Co.
Whitlin Machine Works.
- FLYERS**
Whitlin Machine Works.
Southern Spindle & Flyer Co.
- FRICTION CLUTCHES**
Wood's, T. B. & Sons Co.
See Clutches.
- FUSES**
Chicago Fuse Mfg. Co.
- GEARING, SILENT FLEXIBLE**
Link-Belt Company.
Morse Chain Co.
- GRATE BARS**
Eureka Iron Works.
Thomas Grate Bar Co.
Budd Grate Co.
- GENERATING SETS**
Allis-Chalmers Mfg. Co.
- GRAB BUCKETS**
Link-Belt Company.
- GREASES**
Masury-Young Company.
N. Y. & N. J. Lubricant Co.
Swan & Finch Co.
- GRINDING AND POLISHING MACHINES**
Roy, B. S., & Son Co.
- GRID BARS**
Atherton Grid Bar Co.
Brown-St.-Ong Co.
- HANGERS, SHAFT**
Fafnir Bearing Co.
Hyatt Roller Bearing Co.
Wood's, T. B. & Sons Co.
- HARDWARE SUPPLIES**
Textile Mill Supply Co.
- HARNES TWINE**
Garland Mfg. Co.
- HARNES AND FRAMES**
See Heddles and Frames.
- HEDDLES AND FRAMES**
Garland Mfg. Co.
Steel Heddle Mfg. Co.
- HUMIDIFYING AND AIR CONDITIONING APPARATUS**
American Moistening Co.
Grinnell Co.
The Bahnsen Co.
Carrier Engineering Corporation.
Parke-Cramer Co.
- HUMIDITY CONTROLLER**
American Moistening Co.
The Bahnsen Co.
Carrier Engineering Corporation.
Parke-Cramer Co.
- HYDRO-EXTRACTORS**
Tolhurst Machine Co.
- INDIGO DYEING MACHINERY**
H. W. Butterworth and Sons Co.
- KIERS**
Wm. Allen Sons Co.
- KNITTING MACHINERY**
Brinton, H., Co.
Henphill Company.
Hepworth, John W., & Co.
- KNITTING NEEDLES & SUPPLIES**
Franklin Needle Company.
Torrington Co.
Williams, Chauncey A.
- KNIT GOODS, FINISHING MACHINES**
Kaumagraph Co.
Morrow Machine Co., The.
- KNOTTERS**
Barber-Colman Co.
Mill Devices Co.
- LAMP GUARDS**
Flexible Steel Belting Co.
- LAUNDRY MACHINERY**
American Laundry Machinery Co.
- LANDSCAPE ARCHITECT**
E. S. Draper.
- LIQUID CHLORINE**
Mathieson Alkali Works, Inc.
- LOOMS**
Stafford Co., The.
Crompton & Knowles Loom Works.
Draper Corporation.
Saco-Lowell Shops.
- LOOM BEAMS AND HEADS**
Mossberg Pressed Steel Corp.
- LOOM DROP WIRES**
Mossberg Pressed Steel Corp.
- LOOM HARNESS**
Garland Mfg. Co.
Steel Heddle Mfg. Co.
- LOOM PICKERS**
Garland Mfg. Co.
- LUBRICANTS**
Borne, Scrymser & Co.
Masury-Young Co.
N. Y. & N. J. Lubricant Co.
Swan & Finch Co.
U. S. Oil Co.
- MACHINERY ENAMEL**
E. I. du Pont de Nemours & Co., Inc.
- MANGLES**
American Laundry Machinery Co.
H. W. Butterworth and Sons Co.
- MARKERS**
Kaumagraph Co.
Morrow Machine Co.
- MERCERIZING MACHINERY**
H. W. Butterworth and Sons Co.
Whitlin Machine Works.
- METAL PAINT**
E. I. du Pont de Nemours & Co., Inc.
Wadsworth, Howland and Co., Inc.
- METALLIC ROLLS**
Metallic Drawing Roll Co.
- METERS**
Allis-Chalmers Mfg. Co.
- MILL ARCHITECTS**
See Architects.
- MILL CONSTRUCTION**
David Lupton's Sons, Inc.
- MILL LIGHTING**
See Electric Lighting.
- MILL SUPPLIES**
Dixon Lubricating Saddle Co.
Garland Mfg. Co.
Textile Mill Supply Co.
Thomas Grate Bar Co.
- MILL WHITE**
E. I. du Pont de Nemours & Co., Inc.
Wadsworth, Howland and Co., Inc.
- MOTORS**
Roy, B. S., & Sons Co.
- OILS**
Borne, Scrymser & Co.
Klipstein, A., & Co.
Swan & Finch Co.
N. Y. & N. J. Lubricant Co.
Seydel Chemical Co.
U. S. Oil Co.
Wadsworth, Howland & Co.
Wolf, Jacques & Co.
- OPENING MACHINERY**
Saco-Lowell Shops.
Whitlin Machine Works.
- OVERSEAMING AND OVEREDGING MACHINES**
Morrow Machine Co.
- OVERHAULERS**
Southern Spindle & Flyer Co.
- PAINTS**
Atlantic Paint and Varnish Works, Inc.
Carolina Specialty Co.
E. I. du Pont de Nemours & Co., Inc.
Tripod Paint Co.
Wadsworth, Howland & Co.
- PARTITIONS, STEEL**
Lupton's, David, Sons Co.

CLASSIFIED LIST OF ADVERTISERS

PATENTS—

Siggers & Siggers.
PERBORATE OF SODA—
Roessler & Hasslacher Chemical Co.
PICKERS, LEATHER—
Garland Mfg. Co.
PICKER STICKS—
Garland Mfg. Co.
PIPE AND FITTINGS—
Grinnell Co.

Parks-Cramer Co.
PIPING (Duster and Conveyor)
J. N. McCausland and Co.
PNEUWAY CLEANER—
R. P. Sweeney

PORTABLE ELEVATORS—
Link-Belt Company.
POWER TRANSMISSION
MACHINERY—

Allis-Chalmers Mfg. Co.
Hyatt Roller Bearing Co.
Fafnir Bearing Co.
Link-Belt Company.
Morse Chain Company.
Wood's, T. B., Sons Co.
PREPARATORY MACHINERY
(COTTON)—

Saco-Lowell Shops.
Whitin Machine Works.
PICKERS AND LAPPERS—
Whitin Machine Works.
PRESSES—
Economy Baler Co.

PULLEYS, CAST IRON—
Wood's, T. B., Sons Co.
PUMPS—

(Boller Feed; also Centrifugal.)
Allis-Chalmers Mfg. Co.
Sydnor Pump & Well Co.
QUILLERS—

Universal Winding Co.
Whitin Machine Works.
QUILL CLEANERS—
Terrell Machine Co.

RING TRAVELERS—
National Ring Traveler Co.
RING SPINNING FRAMES—
Whitin Machine Works.

Saco-Lowell Shops.
U. S. Ring Traveler Co.
PRESSES—

American Laundry Machinery Co.
Collins Bros.
Saco-Lowell Shops.

PEROXIDE OF SODIUM—
Roessler & Hasslacher.
RECEPTACLES—
Economy Baler Co.

ROLLS—
The Whitin Machine Works.
Metallic Drawing Roll Co.
Saco-Lowell Shops.
Southern Spindle & Flyer Co.

ROLLER BEARINGS—
Hyatt Roller Bearing Co.
ROOFING—

David Lupton's Sons, Inc.
ROPE TRANSMISSION—
Link-Belt Company.

Wood's, T. B., Sons Co.
ROVING CANS AND BOXES—
American Vulcanized Fibre Co.

Rogers Fibre Co.
ROVING MACHINERY—
Whitin Machine Works.
Saco-Lowell Shops.

SADDLES—
Dixon Lubricating Saddle Co.
SALT—

Myles Salt Company.
SANITARY EQUIPMENT—
Pure Sanitary Drinking Fountain Co.

Vogel Co., Joseph A.
SANITARY FOUNTAINS—
See Drinking Fountains.

SASH, STEEL—
Lupton's, David, Sons Co.

SCALLOP MACHINES—
Morrow Machine Co.

SCOURING POWDERS—
Champion Chemical Co.
Midland Chemical Laboratories.

SECTION BEAM HEADS—
Mossberg Pressed Steel Corp.

SEWING MACHINES—
Morrow Machine Co.

SHAFTING, HANGERS, ETC.—
See Power Transmission Machinery.

SHELL STITCH MACHINES—
Morrow Machine Co.

SHAFTING—
Fafnir Bearing Co.

Wood's, T. B., Sons Co.
SHEET METAL WORK—
J. N. McCausland & Co.

SHELVING, STEEL—
Lupton's, David, Sons Co.

SHUTTLES—
SESQUICARBONATE OF SODA—
Mathieson Alkali Works, Inc.

David Brown Co.
Lestershire Spool & Mfg. Co.
Lowell Shuttle Co.

Draper Corporation.
U. S. Bobbin & Shuttle Co.
SINGING MACHINERY—
H. W. Butterworth and Sons Co.

SIZING STARCHES, GUMS—
Arnold, Hoffman and Co., Inc.

Allen, Charles R.
Atlantic Dyestuff Co.
Arabol Mfg. Co.

Borne, Scrymser Co.
Bosson & Lane.
A. E. Staley Mfg. Co.

Corn Products Refining Co.
Drake Corporation.

E. F. Draw & Co.
Hawley's Laboratories
United Chemical Products Co.
John P. Marston Co.

H. A. Metz & Co., Inc.
A. Kilpstein & Co.
Seydel Chemical Co., The

Stein, Hall & Co.
Jacques, Wolf & Co.
SILENT CHAIN DRIVE—
Link-Belt Company.

Morse Chain Company.
SKEWERS—
U. S. Bobbin & Shuttle Co.

Courtney, The Dana S., Co.
Jordan Mfg. Co.
Walter L. Parker Co.

David Brown Co.
SKYLIGHTS—
J. N. McCausland and Co.

SKYLIGHT, ROLLED STEEL—
Lupton's, David, Sons Co.
SOFTENERS (COTTON)—

Arnold, Hoffman and Co., Inc.
United Chemical Products Corp.
Arabol Mfg. Co.

Bosson & Lane.
Jacques Wolf & Co.
Metz, H. A., & Co., Inc.

Seydel Chemical Co., The
SLASHERS AND EQUIPMENT—
Saco-Lowell Shops.

SLASHER HOODS—
R. O. Pickens Slasher Hood Co.
McCausland, J. N., & Co.

SOAPS—
Arabol Mfg. Co.

Poland Soap Works.
Kilpstein, A., & Co.
Seydel Chemical Co., The

United Chemical Products Co.
SOFTENERS—
Borne, Scrymser Co.

SOLOZONE—
Roessler & Hasslacher Chemical Co.
SPINDLES—

Draper Corporation.
Saco-Lowell Shops.
Southern Spindle & Flyer Co.

Whitin Machine Works.
SPINNING FRAME SADDLES—
Dixon Lubricating Saddle Co.

SPINNING RINGS—
Draper Corporation.
Pawtucket Spinning Ring Co.

Whitin Machine Works.
Whitinsville Spinning Ring Co.
SPROCKETS, SILENT CHAIN—
Link-Belt Company.

Morse Chain Co.
STARCH—
See Sizing, Starch and Gum.

Draper Corporation.
Saco-Lowell Shops.
Penick and Ford, Ltd.

Whitin Machine Works.
SPOOLERS—
SPINNING TAPE—
John B. Young.

American Textile Banding Co.
SPOOLS—
David Brown Co.

Lestershire Spool & Mfg. Co.
U. S. Bobbin & Shuttle Co.
Courtney, The Dana S., Co.

Jordan Mfg. Co.
Walter L. Parker Co.
See Bobbins, Spools, Shuttles.

SODA ASH—
Mathieson Alkali Works, Inc.
SWITCH BOXES—
Chicago Fuse Mfg. Co.

TANKS—
G. Woolford Wood Tank Mfg. Co.
Southern Engineering Co.

TAPES, BRAIDS AND EDGINGS—
John B. Young.
American Textile Banding Co.

TEXTILE MACHINERY SPECIALTIES—
Cocker Machine and Foundry Co.
Hyatt Roller Bearing Co.

TEMPLES—
Draper Corporation.
TESTING APPARATUS (FABRICS)—
Perkins, B. F., & Son, Inc.

TRANSFER STAMPS—
Kaumagraph Co.
TRANSMISSION BELT—
Grant Leather Corporation.

Baltimore Belting Co.
Charlotte Leather Belting Co.
TRANSMISSION MACHINERY—
Allis-Chalmers Mfg. Co.

East Jersey Pipe Co.
Tolhurst Machine Works.
Wood's, T. B., Sons Co.

TOILETS—
Vogel, Jos. A., Co.
TOOL CABINETS AND STANDS,
STEEL—
Lupton's, David, Sons Co.

TOWERS—
G. Woolford Wood Tank Mfg. Co.
Southern Engineering Co.

TRANSMISSION MACHINERY—
Hyatt Roller Bearing Co.
TRANSMISSION SILENT CHAIN—
Link-Belt Co.

Morse Chain Co.
TRUCKS (MILL)—
American Vulcanized Fibre Co.

TRUCKS (AUTOMOBILE)—
Cyclone Motors Corporation.
TUBES, PAPER—
Southern Novelty Company.

TURBINES (STEAM)—
Allis-Chalmers Mfg. Co.

TWISTING MACHINERY—

Draper Corporation.
Saco-Lowell Shops.
Whitin Machine Works.
UNDERWEAR MACHINES—
Morrow Machine Co.

VENTILATING APPARATUS—
American Moistening Co.
Carrier Engineering Corporation.

J. N. McCausland and Co.
Parks-Cramer Co.
Tolhurst Machine Works.

WARPERS—
Cocker Machine & Foundry Co.
Draper Corporation.

T. C. Entwistle Co.
WARP DRESSING—
Drake Corporation.

SEPARATORS—
WARP STOP MOTION—
Draper Corp.

R. I. Warp Stop Equipment Co.
VARNISHES—
Atlantic Paint and Varnish Works, Inc.

Wadsworth, Howland and Co., Inc.
WARP TYING MACHINERY—
Barber-Colman Co.

WASHING POWDERS—
Poland Soap Works.
WASHERS (FIBRE)—
Rogers Fibre Co.

American Vulcanized Fibre Co.
WASTE BINS, STEEL—
Lupton's, David, Sons Co.

WASTE RECLAIMING MACHINERY—
Saco Lowell Shops.
Whitin Machine Works.

WASTE PRESSES

Economy Baler Co.
WATER INTAKE SCREENS—
Link-Belt Company.

WEIGHTING COMPOUNDS—
Arabol Mfg. Co.
Atlantic Dyestuff Co.

Bosson & Lane.
Marston, John P.
Kilpstein, A., & Co.

Metz, H. A.
Newport Chemical Works.
Seydel Chemical Co., The

Jacques, Wolf & Co.
WATER WHEELS—
Allis-Chalmers Mfg. Co.

WELL DRILLING—
Sydnor Pump & Well Co.
WINDERS—
Saco-Lowell Shops.

Universal Winding Co.
WINDOWS—
David Lupton's Sons, Inc.

WINDOW FRAMES AND SASH,
STEEL—
Lupton's, David, Sons Co.

WHIZZERS—
Tolhurst Machine Works.
YARNS—
Florsheim, H. A.

Gray-Separk Millie.
Erwin Yarn Agency.
Paulson, Linkroom & Co.

Mauney-Steele Company.
YARN PRESSES—
Economy Baler Co.

Cocker Machine and Foundry Company Gastonia, N. C.

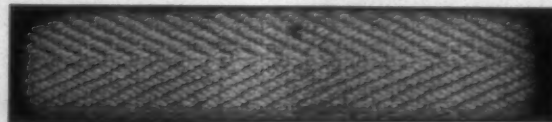
BUILDERS OF TEXTILE MACHINERY

Linking Warpers Linkers Balling Warpers Balling Attachments
Section Beam Warpers Long Chain Beams Short Chain Beams
Warp Splitting Machines Warp Dyeing Machines Warp Doublers
and Splitters Warp Coilers Boiling Out Boxes and Warp Washing
Machines Dye House Ballers.

AMERICAN TEXTILE BANDING CO., Inc

Manufacturer

Spindle Tape
AND
Bandings



Bolfield Ave. and Wister St., Germantown, Phila., Pa.

R. H. BOULIGNY, INC.

ENGINEERING CONTRACTORS

*Electrical Installations of All Kinds
Transmission Lines*

105 Kinney Bldg CHARLOTTE North Carolina

Carolina Soluble Pineole Disinfectant

run through humidifying systems
keeps down Flu. We sell the best.

CAROLINA SPECIALTY COMPANY
Latta Arcade
Charlotte, N. C.

ALPHABETICAL LIST OF ADVERTISERS

Adams, Geo. H. Co., 11 West 4th St., Charlotte, N. C.
 Allen, Chas. R., Charleston, S. C.
 Wm. Allen Sons Co., Worcester, Mass.
 Alisa-Chalmers Mfg. Co., Milwaukee, Wis.
 American Moistening Co., Boston, Mass.
 American Vulcanized Fibre Co., Wilmington, Del.
 American Laundry Machinery Co., Cincinnati, Ohio.
 American Textile Banding Co., Philadelphia, Pa.
 Arabol Mfg. Co., New York.
 Armature Winding Co., Charlotte, N. C.
 Arnold Hoffman and Co., Providence, R. I.
 Ashworth Bros., Charlotte, N. C.
 Atherton Pin Grid Bar Co., Providence, R. I.
 Atlanta Brush Co., Atlanta, Ga.
 Atlantic Dyestuff Co., 88 Ames Building, Boston, Mass.
 Bank of Charleston, Charleston, S. C.
 Arthur S. Brown, Tilton, N. H.
 Brown, The David Co., Lawrence, Mass.
 J. L. Bussey & Co., Greenville, S. C.
 Bahnsen Co., Winston-Salem, N. C.
 Borne, Scrymser Co., 80 South St., New York.
 Boulligny, R. H., Inc., 105 Kinney Bldg., Charlotte, N. C.
 B. F. Bond Paper Co., Baltimore, Md.
 Barber Colman Co., Rockford, Ill.
 Baltimore Belting Co., Spartanburg, S. C.
 Bosson & Lane, Atlantic, Mass.
 Bradshaw-Roberson Cotton Co., Greensboro, N. C.
 Brinton, H. Co., Philadelphia, Pa.
 Brown-St. Onge Co., Providence, R. I.
 Budd Grate Co., 2011 E. Hagert St., Philadelphia, Pa.
 H. W. Butterworth and Sons Co., Philadelphia, Pa.
 Carrier Engineering Corp., New York.
 Carolina Specialty Co., Charlotte, N. C.
 Catlin & Co., 345 Broadway, New York.
 Champion Chemical Co., Asheville, N. C.
 Charleston Security Co., Charleston, S. C.
 Charleston Trust Co., Charleston, S. C.
 Charlotte Supply Co., Charlotte, N. C.
 Chicago Fuse Mfg. Co., Chicago, Ill.
 Clements Mfg. Co., 621 Fulton St., Chicago.
 Coker Cotton Co., Hartsville, S. C.
 Cocker Machine & Foundry Co., Gastonia, N. C.
 Collins Bros. Machine Co., Pawtucket, R. I.
 Cooper & Griffin, Greenville, S. C.
 Corn Products Refining Co., New York.
 Courtney Co., Dana S., Chicopee, Mass.
 Crompton & Knowles Loom Works, Worcester, Mass.
 Joseph L. Davidson, 225 N. Second St., Philadelphia.
 Joseph Dixon Crucible Co., Jersey City, N. J.
 Dixon Lubricating Saddle Co., Bristol, R. I.
 E. S. Draper, 11 E. Fifth St., Charlotte, N. C.
 Draper Corporation, Hopedale, Mass.
 E. F. Drew & Co., Philadelphia, Pa.
 Dronsfield's Sales Agency, 232 Sumner St., Boston, Mass.
 Drake Corporation, Norfolk, Va.
 E. I. duPont de Nemours & Co., Wilmington, Del.
 Economy Baler Co., Ann Arbor, Mich.
 Edge Moor Iron Co., Edge Moor, Del.
 Emmons Loom Harness Co., Lawrence, Mass.
 T. C. Entwistle Co., Lowell, Mass.
 Fafnir Bearing Co., New Britain, Conn.
 Flexible Steel Lacing Co., 4699 Lexington St., Chicago, Ill.
 Florsheim, H. A., 225 Fifth Ave., New York.
 J. B. Ford Co., Wyandotte, Mich.

Franklin Process Co., Providence, R. I.
 Franklin Needle Co., Franklin, N. H.
 Grant Leather Corporation, Kingsport, Tenn.
 Graton and Knight Mfg. Co., Worcester, Mass.
 Garland Mfg. Co., Saco, Me.
 Greenville Textile Supply Co., Greenville, S. C.
 Grinnell Co., Providence, R. I.
 Kenneth Grigg & Co., Lincoln, N. C.
 Hambley & Co., Salisbury, N. C.
 Hart Products Corp., 44 E. 52nd St., New York.
 Hawley's Laboratories, Charlotte, N. C.
 Hesslein & Co., Inc., 57 Worth St., New York.
 Hemphill Co., Pawtucket, R. I.
 Hepworth, John W. & Co., Lehigh Ave. and Mascher St., Philadelphia, Pa.
 John Hetherington and Sons, Ltd., 10 High St., Boston, Mass.
 Arnold Hoffman Co., Providence, R. I.
 Hollingsworth, J. D., Greenville, S. C.
 Huntington & Guerry, Greenville, S. C.
 Hockaday Co., Chicago, Ill.
 C. F. Jones & Co., Salisbury, N. C.
 Johnson & Howie, Monroe, N. C.
 Jordan Mfg. Co., Monticello, Ga.
 International Chemical Co., Philadelphia, Pa.
 Jennings, Mfg. Co., Thomasville, N. C.
 Jennings, A. T. & Co., 88 Broad St., New York.
 Kaumagraph Co., 209 W. 38th St., New York.
 Keefer Starch Co., Greenville, S. C.
 Klauder-Weldon Dyeing Machine Company, Jenkintown, Pa.
 Kilpstein & Co., A., New York.
 Edward R. Ladew Co., 428 Broadway, New York.
 Lesser-Goldman Cotton Co., Charlotte, N. C.
 J. H. Lane & Co., New York.
 Lawrence & Company, Boston, Mass.
 Lockwood, Greene & Co., Boston, Mass.
 Lowell Shuttle Co., Lowell, Mass.
 Link-Belt Company, Nicetown, Philadelphia, Pa.
 Lineberger Bros., Lincolnton, N. C.
 Lupton, David, Sons, nc., Philadelphia.
 Myles Salt Co., 712 Whitney Bldg., New Orleans, La.
 Macroditi Fibre Co., Woonsocket, R. I.
 Marston Co., John P., 247 Atlantic Ave., Boston, Mass.
 Mathieson Alkali Works, New York.
 Masury-Young Co., 196 Milk St., Boston, Mass.
 Mill Devices Co., Durham, N. C.
 Mauney Steel Co., Philadelphia, Pa.
 Merrow Machine Co., Hartford, Conn.
 Metallic Drawing Roll Co., Indian Orchard, Mass.
 J. N. McCausland Co., Charlotte, N. C.
 Metz & Co., H. A., 122 Hudson St., New York.
 Monroe Calculating Machine Co., Woorworth Bldg., New York.
 Morehead Mfg. Co., Detroit, Mich.
 Morse Chain Co., Ithaca, New York.
 Mossberg Pressed Steel Cor., Attleboro, Mass.
 National Lead Co., New York.
 National Ring Traveler Co., Providence, R. I.
 National Aniline & Chemical Co., New York.
 N. C. Reed Co., High Point, N. C.
 N. Y. & N. J. Lubricant Co., 401 Broadway, New York.
 Page Fence and Wire Products Association, 215 N. Michigan St., Chicago.
 B. H. Parker & Co., Gastonia, N. C.

Paulson, Linkroum & Co., 52 Leonard St., New York.
 Parks-Cramer Co., Fitchburg, Mass.
 Walter L. Parker Co., Lowell, Mass.
 Pawtucket Spinning Ring Co., Central Falls, R. I.
 R. I. Warp Stop Equipment Co., Pawtucket, R. I.
 Rice, Dobby Chain Co., Millbury, Mass.
 Ridley Watts and Co., 44 Leonard St., New York.
 Rogers Fibre Co., 121 Beach St., Boston, Mass.
 Rose, Geo. M., Jr., Charlotte, N. C.
 Roessler & Hasslacher Chemical Co., 709 Sixth Ave., New York.
 Roy & Sons Co., B. S., Worcester, Mass.
 Sanders, Orr & Co., Charlotte, N. C.
 Saco-Lowell Shops, Charlotte, N. C.
 S K F Industries, Inc., New York.
 Scott, Charnley and Co., Charlotte, N. C.
 Seaboard Railway, Charlotte, N. C.
 Seydel Chemical Co., Jersey City, N. J.
 Shirrine, J. E., Greenville, S. C.
 Shambow Shuttle Co., Woonsocket, R. I.
 Southern Novelty Co., Hartsville, S. C.
 Southern Railway, Charlotte, N. C.
 Southern Textile Machinery Co., Greenville, S. C.
 Southern Spindle & Flyer Co., Charlotte, N. C.
 Southern Textile Banding Mill, Charlotte, N. C.
 Stafford Co., The, Readville, Mass.
 Staley Mfg. Co., A. E., Decatur, Ill.
 Sydnor Pump & Well Co., Richmond, Va.
 Steel Heddle Mfg. Co., Philadelphia, Pa.
 Stein, Hall & Co., New York City.
 R. P. Sweeney, Greenville, S. C.

Swan & Finch Co., 522 Fifth Ave., New York.
 Tanner & Jones, Charlotte, N. C.
 Terrell Machine Co., Charlotte, N. C.
 Textile Mill Supply Co., Charlotte, N. C.
 Thomas Grate Bar Co., Birmingham, Ala.
 Threefoot Bros. & Co., Meridian, Miss.
 Tolhurst Machine Works, Troy, N. Y.
 Torrington Co., Torrington, Conn.
 Tripod Paint Co., 68 N. Broad St., Atlanta, Ga.
 United Chemical Products Corp., Jersey City, N. J.
 U. S. Bobbin & Shuttle Co., 57 Eddy St., Providence, R. I.
 U. S. Oil Co., Providence, R. I.
 U. S. Ring Traveler Co., Providence, R. I.
 Universal Winding Co., Boston, Mass.
 Vogel Co., Jos. A., Wilmington, Del.
 Wilson, Wm. and York, Charlotte, N. C.
 Wadsworth, Howland & Co., Boston, Mass.
 Wolfe, H. H., & Co., Monroe, N. C.
 Wolf & Co., Jacques, Passaic, N. J.
 Wood's, T. B. Sons Co., Chambersburg, Pa.
 Woolford, G., Wood Tank Mfg. Co., 710 Lincoln Bldg., Philadelphia, Pa.
 Whitin Machine Works, Whitinsville, Mass.
 Whitinsville Spinning Ring Co., Whitinsville, Mass.
 Whitman & Son, Clarence, New York.
 Wilkins & Gibson, Greenville, S. C.
 Williams, Chauncey A., Manchester, N. H.
 Wilts Veneer Co., Richmond, Va.
 John B. Young, Lawndale, Philadelphia, Pa.



**Standard
Size of the South**

Mildew, bleach and dye troubles are unknown to mills
using Sizol

THE SEYDEL CHEMICAL COMPANY
NEW YORK CITY, N. Y.

Jersey City, N. J.

Nitro, W. Va.

Sizings

Softeners

Finishings

S. C. Thomas and C. C. Clark, Spartanburg, S. C.

**OUR SPINNING RINGS---SINGLE OR
DOUBLE FLANGE**

Start Easiest, Run Smoothest, Wear Longest!

PAWTUCKET SPINNING RING CO.

CENTRAL FALLS, R. I.

Ashworth Brothers, Inc.

Tempered and Side Ground Card Clothing

TOPS RECLOTHED

LICKERINS REWOUND

COTTON MILL & WINERY REPAIRED

For Prompt Service send your Top Flats to be reclothed and your Lickerins to be rewound to our nearest factory. We use our own special point hardened lickerin wire.

12 to 18 West Fourth St., Charlotte, N. C.

240 River Street, Greenville, S. C.

127 Central Avenue, Atlanta, Ga.

UNIVERSAL WINDING COMPANY — BOSTON



Winding machines for single and ply yarns, cotton, woolen, worsted and silk. Write for circular describing the NEW WIND DOUBLER, also the No. 80 for winding SUPERCONES.

CHARLOTTE OFFICE
804 Realty Building
FREDERICK JACKSON

ATLANTA OFFICE
1121 Candler Bldg.
WINTHROP S. WARREN

—Agents—

Established 1815

Arnold, Hoffman & Co., Inc.

PROVIDENCE, R. I.
BOSTON, MASS.

PHILADELPHIA, PA.
NEW YORK, N. Y.

CHARLOTTE, N. C.

Oldest in Years Youngest in Spirit
Modern in Ideas Progressive in Methods
"Service" Our Motto

All kinds of
Warp Dressing, Finishing Materials, Soaps
Soluble Oils, Etc.

Please Submit Your Problems to Us

PRINTING?

RULED FORMS?

GET OUR QUOTATIONS

LETTER HEADS

on any quality of paper and envelopes to match

BILL HEADS FACTORY FORMS

STATEMENTS INVOICES

PAY ROLL ENVELOPES

Let us LITHOGRAPH your Letter Head

LOOSE LEAF SYSTEMS and BINDERS

Ledgers, Journals, Cashbooks and Day Books

MANY MILL FORMS CARRIED IN STOCK

WASHBURN PRESS, INC.

DAVID CLARK, President

22 W. TRADE ST. PHONE 342 CHARLOTTE, N. C.

You Receive Seventeen (17) Years of Practical Printing Experience

**Why a Morse
Silent Chain**

The Morse silent chain is used because of its superiority based on the design of the exclusive "rocker-joint" construction, the very highest grade of material and heat treatment, the extreme accuracy in manufacturing and the engineering assistance in the designing of textile drives by engineers trained in this particular line and backed by the long standing reputation of the MORSE CHAIN COMPANY.

DO YOU KNOW about the MORSE Line Shaft Drive,
The MORSE Spinning Frame Drive?

Write for Booklets

Send for INFORMATION Address NEAREST Office
FACTS will Surprise You



Morse Chain Co.

Ithaca, N. Y.



ASSISTANCE FREE

CHARLOTTE, N. C., 404 Commercial Bank Building

Cleveland
Chicago
Baltimore
Boston
New York

Detroit
Philadelphia
Pittsburgh
San Francisco

Atlanta
Montreal
Minneapolis
St. Louis

"MORSE" is the guarantee always behind our
Efficiency, Durability and Service

**SACO-LOWELL
SERVICE**

BULLETIN NO. 4

Our Southern Repair Shop in Charlotte is under the direction of Mr. W. E. Harvell who has had twenty years experience with us in rewinding lickerins and reclothing top flats.

Before Mr. Harvell took charge of this shop he served several years as an erector of Saco-Lowell cards.

His men have been trained carefully and have also had years of experience.

Such experience does count and we want to give you the benefit of this experience by rewinding your lickerins and reclothing your flats.

We rewind all makes of lickerins and reclothe all makes of flats.

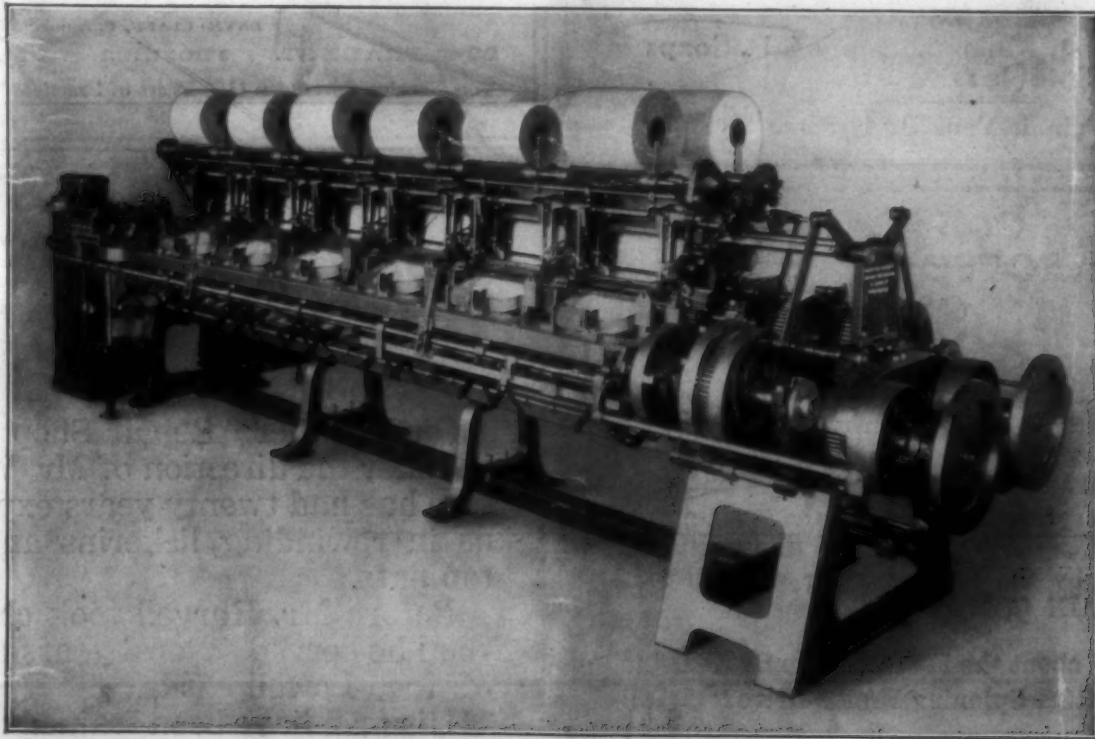
TRY THIS SERVICE

SACO-LOWELL SHOPS

CHARLOTTE, N. C.

JOHN HETHERINGTON & SONS

LIMITED.
Manchester, England
Established 1830
Specialists In Cotton Mill Machinery
Every Machine from Pickers to Mules
TWO NEW MODELS
Nasmith Combers
Twin Six Single Six
We are Sole Licensees



This machine can be built as a Single Six Head machine, if so desired.

Old cotton mill rejuvenated by the installation of the original Hetherington—Nasmith patent combers. (Three Models.)

HERBERT HARRISON, Sole Agt. U. S. and Canada, 10 High St., Boston, (9) Mass.

Southern Representative, J. H. MAYES, Charlotte, N. C.